

**KINETIC FAMILY DRAWINGS (KFD'S) OF  
SEXUALLY ABUSED AND NON-ABUSED  
AFRICAN FEMALES**

**by**

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**Submitted in partial fulfillment for the degree  
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in the Department of Educational Psychology  
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## DECLARATION

I hereby declare that unless specifically indicated to the contrary, this research is the result of my own work.

The views expressed herein are those of the writer and not of the Centre for Scientific Development, who assisted with financial support.

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CINDY Mc DONALD

### **Note on terminology**

“Control group” is used interchangeably with “non-referred” (rather than “non-abused”) since there was no way to determine with certainty that the control group subjects had not been sexually abused without exposing the nature of the present research, (that is, a study of the KFD’s of sexually and non-sexually abused children).

The term “African” is used in the present research to refer to individuals who would have been classified as “Black” under the apartheid system. This is problematic in that, for instance, some argue that individuals who would have been classified as “Indian” and “Coloured” are also “Blacks”. Others argue that anyone born in Africa, regardless of colour, is “African”. Similarly, the term “Non-Western” is used to refer to individuals other than those who would have been classified as “white” under the apartheid system. The researcher is aware of difficulties with this since, for instance, it assumes that all “white” people come from “the West” while everyone else does not.

The term “household” was used in the present research in preference to “family” due to differing conceptions as to what constitutes a family and since “household” is easier to operationalise, (all the individuals who live in one’s house), than is “family”.

EI’s refer to Emotional Indicators as devised by Reynolds (1978). AI’s refer to Abuse Indicators as drawn from research on the human figure drawings of sexually abused children and adolescents.

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## ABSTRACT

The discriminative ability and interrater reliability of one quantitative method of scoring Kinetic Family Drawings, (KFD's), was explored, focusing on a little researched population - that of sexually abused versus non-referred Zulu speaking females between 7 and 11 years of age. An additional 20 indicators, suggested by various research to be frequent in the human figure drawings of (Western) sexually abused children, were also evaluated.

The KFD's of 28 subjects were obtained. The 14 experimental group subjects were drawn from an organisation which deals extensively with the child survivors and perpetrators of sexual abuse. The 14 control group subjects were drawn from a local primary school and had no *known* history of sexual abuse.

Results were interpreted empirically. Results suggested that although the scoring system may be reliable, it is sensitive to the training, theoretical stance, etc. of the user. It was also suggested that the indicators used were not, as used by the scorers, able to distinguish between the KFD's of the control and experimental groups. The relevance of certain of the indicators to South African populations was questioned since they were not scored at all by the scorers.

In view of the researcher's perception of shortcomings with this approach, she attempted to describe more fully that which was depicted in the KFD's collected. Finally, several comments on the utility of viewing drawings from social constructivist, deconstructionist and social constructionist understandings as a complement to qualitative and quantitative approaches to the KFD were made.

Suggestions as to how the KFD could be fruitfully used were proffered. It was contended that the KFD technique is not suitable for the use of lower level health care workers, that KFD's may have value in therapeutic settings, and that quantitative methods are simply one set of meanings which could be used to (partly) understand KFD's - attending to the child's context and the meanings he/she attributes to the various aspects of the KFD was contended to be important.

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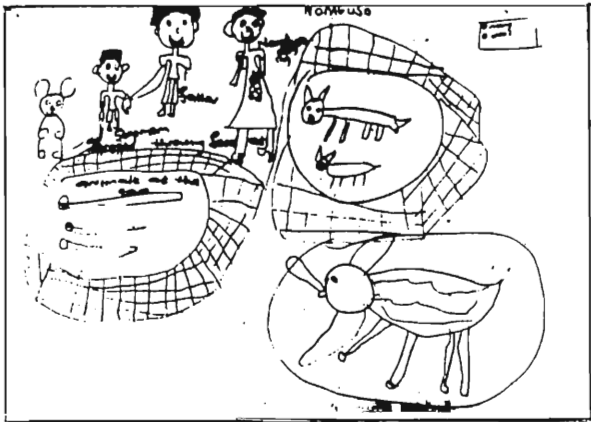
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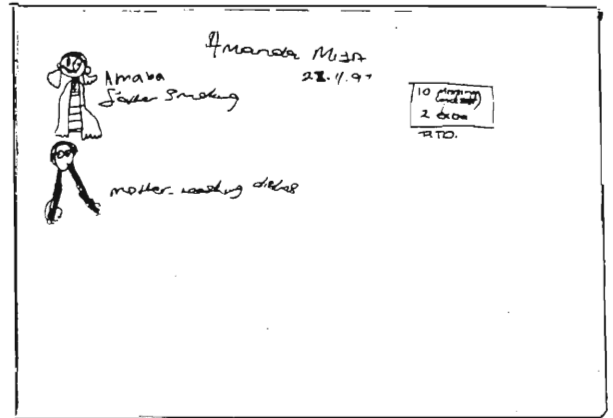
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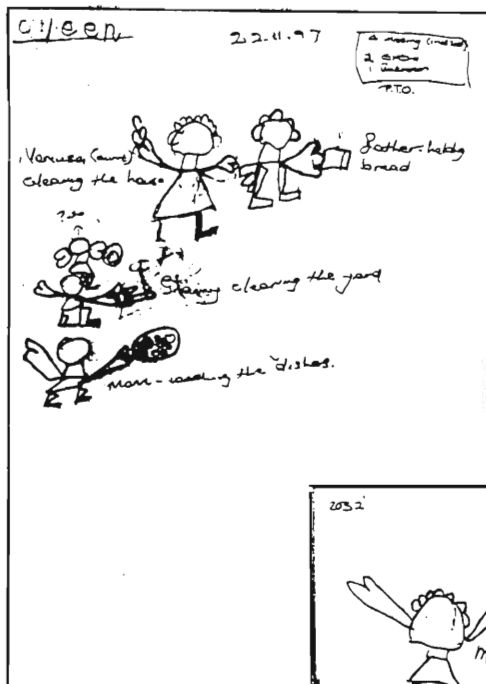
# Introducing the research



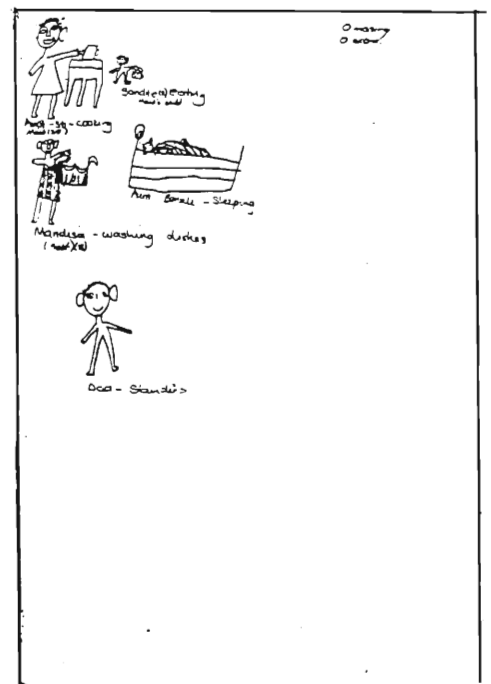
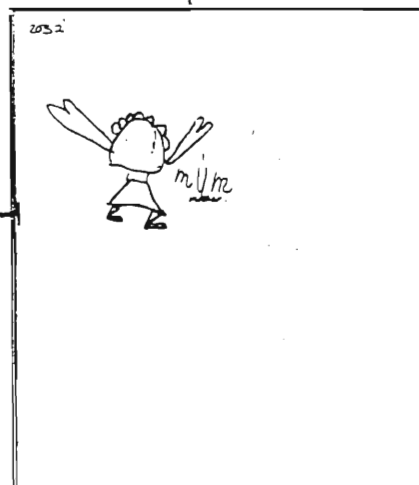
KFD 1



KFD 2



KFD 3.a



KFD 4

## Chapter 1

### **Introducing the research**

The present research originated from the researcher's fascination with the art products of children, both the uniqueness of each child's art and the possibility of their artwork as a window to the child's internal world, emotions, experiences, etc. Further, drawings are a product created by the child, either of their own volition, or, in health care settings, in response to the request to draw something.

Drawings also appeal to a wide range of health workers who deal with children since they are non-threatening, non-intrusive, do not require elaborate equipment in order to obtain them and are therefore easy to collect. However the researcher believes that it is just this intuitive appeal of drawings that also results in one of their weaknesses - it is widely held that drawings are open to interpretation and hence can be easily used by a wide range of individuals in the health care and educational professions. It is frequently assumed that users do not need much, if any, training in how to score these drawings, hence their popularity.

The scoring systems that have been developed have attempted to delineate characteristic features of drawings, and to establish the meaning and hence the diagnostic significance of these attributed meanings. Examples of these include Koppitz' scoring system for the human figure and Burns and Kaufman's scoring system for the Kinetic Family Drawing (KFD). However these systems were developed based on the developers' respective experience with children in Western populations. In spite of this, these scoring systems are frequently applied in work with non-Western South African populations.

A further fascinating phenomenon, in relation to drawings as used clinically, is the power with which they are imbued by professionals. Drawings are purported to give suggestion, (or, some would even argue, indication), of internal issues, past

experiences, emotional states, etc. On having produced a drawing, the drawing appears to acquire a power of its own, as it gets interpreted, used diagnostically and the results of the interpretation and diagnosis are written up and distributed in the form of a report. Frequently very little discussion is held with the child around the drawing and its significance and relevance to the child.

In view of the above, it was decided to explore the applicability of the clinical use of drawings for one population of African children - sexually abused Zulu females between 7 and 11 years of age. Their drawings were compared with those of a non-referred sample of Zulu females, also between 7 and 11 years of age. Drawings were initially scored using one quantitative method of scoring, evaluating and interpreting the KFD, that developed by Reynolds (1978), as used by Tharinger and Stark (1990). The rationale behind this decision was that if these techniques are to be used more broadly in the South African context, by auxiliary health care workers, approaches to projective techniques which are more structured and less qualitative may be less dependent on specialised, clinical training and therefore may be suitable for the use of these health care workers. Such an examination would allow for the evaluation of the usefulness of the various indicators as used by Tharinger and Stark (1990) and for the identification of characteristics in the sample's drawings that may not be accounted for in Tharinger and Stark's (1990) method.

It was thus hoped that suggestions as to how the KFD could be beneficially, wisely and fairly used with South African children could be generated. The present research was structured in such a way as to allow for comparison between a clinical and non-clinical sample in order to establish whether, through the statistical analysis necessitated by the quantitative scoring system, (based on Western populations), certain robust indicators would emerge which could assist in the overall process of evaluation and interpretation of this sample of children's drawings. As the statistical analysis was undertaken, hypotheses emerged which were then investigated statistically, (see Chap. 3). It was further decided that a descriptive account of the drawings would be given to explore whether any additional information could be gleaned which could assist in future use of the KFD.

To this end, 14 females, between the ages of 7 and 11 who had been referred to an organisation dealing extensively with sexually abused children in Durban were requested to do a KFD. Their drawings were compared using the quantitative scoring system with the KFD's of a non-referred sample from a primary school in the Edendale Valley, matched for age and approximate household size. (Selection procedures appear in section 3.2).

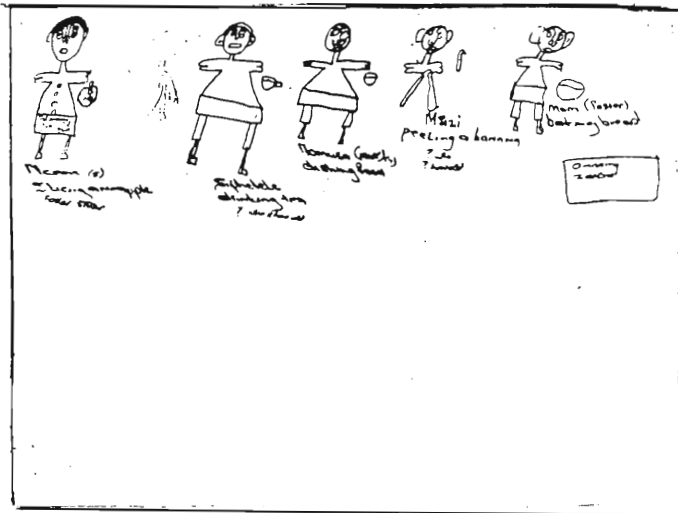
In addition, it was intended that through a thorough investigation of the history of development of projective techniques, the historical influences on KFD's would be elucidated, hopefully sensitising prospective users to the theoretical stances which they inevitably assume on using this technique. In addition, it would allow the researcher to proffer some carefully considered, informed suggestions as to how this technique could be fruitfully used. Inevitably, however, any suggestions made reflect the internal debate that has been raging within the researcher as she struggles to find a suitable manner in which to use drawings in her dealings with children in a clinical setting and as part of her development as a professional.

It is not the intention of the present research to call for quantitative methods to be discarded. Rather it is hoped that it will sensitise individuals to the wide range of factors which impact on the child's production of a drawing, and the inevitable theoretical stance which is assumed the moment one considers any method of evaluating KFD's. It is hoped that this will encourage a more cautious, reflective approach to the clinical use of drawings.

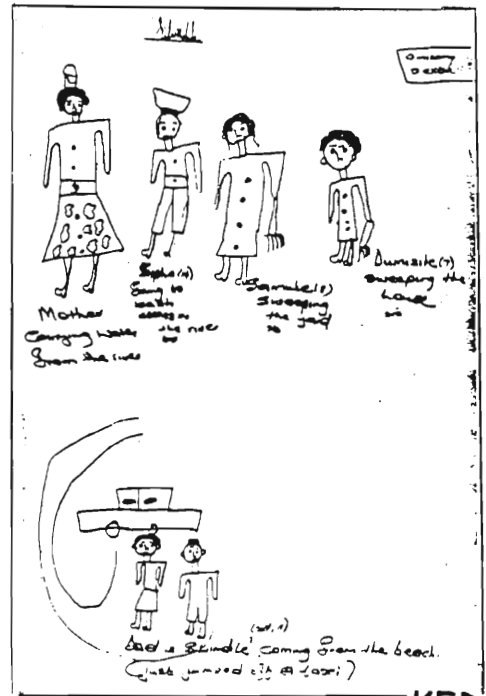
In sum, the present research is an attempt at exploring the utility of KFD's for South African populations, by investigating the use of one structured technique, (developed on Western populations, now frequently used with Non-western population groups) on a very small population of South African children. Themes or characteristics of these drawings were identified through statistical analysis. Perusal of the drawings was undertaken in an attempt to understand or describe the drawings more fully than would be allowed by use of the scoring system alone. Critical consideration was given to the constructions which form the basis of the technique, and tentative propositions made

for the use of KFD's as a means of communicating collaboratively with children about their life experiences. It is proposed that drawings are valuable means of opening up avenues for discussion with the child, rather than as a diagnostic instrument.

Chapter 2 will therefore explore the historical influences on the projective use of drawings and on the KFD in particular, as well as relevant research and criticisms of the technique. Chapter 3 outlines the process of research and the subjects' demographic information. Results obtained are presented in Chapter 4, while Chapter 5 forms the discussion and debate around the emergent results and the relevant literature. Informed, considered, suggestions as to how this technique could fruitfully be used in the South African context are proffered throughout, based on the results, major debates in this field and the literature reviewed. These are summarised in Chapter 6, together with an evaluation of the theoretical frameworks used.

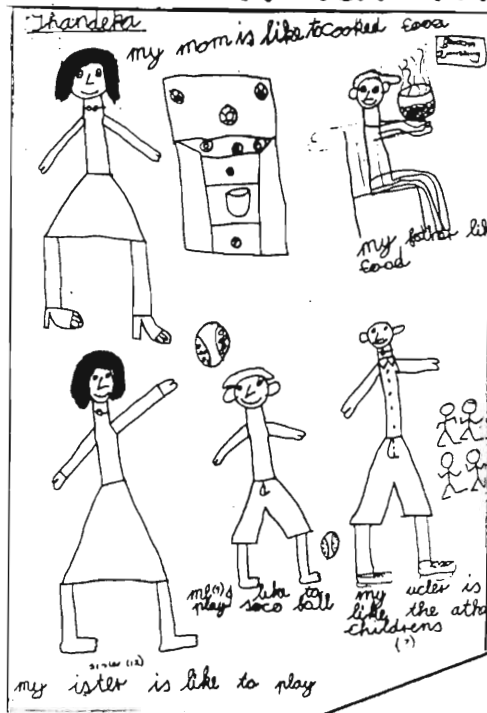


KFD 5

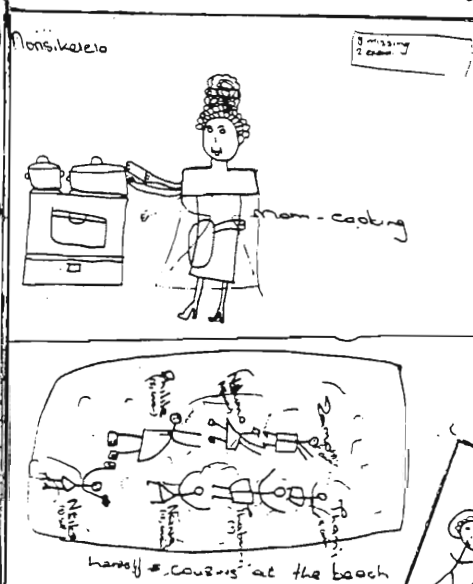


KFD 6

## What the literature says



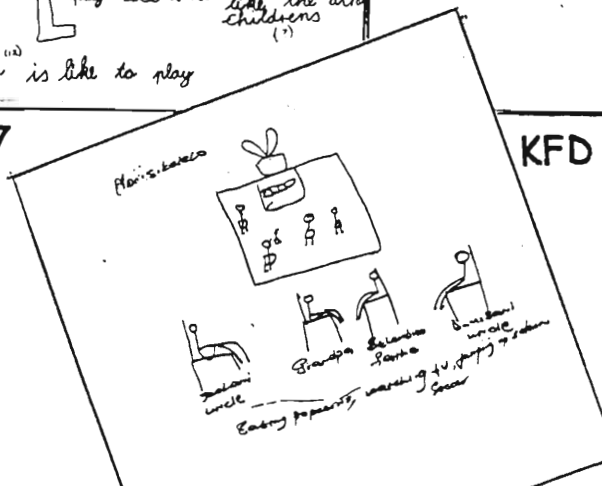
KFD 7



KFD 8.a



KFD 8.





## **What the literature says**

### **2.1 Introduction**

An attempt will be made to elucidate the development and use of the KFD by first briefly introducing projective techniques. The origins of the projective use of drawings will then be summarised. The KFD will be discussed next, followed by a review of the history of the KFD and selected literature and research, of relevance to the present study.

Hereafter, more recent conceptual approaches to the clinical/therapeutic use of children's drawings will be presented. Finally, various issues which the present writer believes are essential to any examination of KFD's, regardless of the theoretical position from which one comes, will be briefly introduced.



### **2.2 Projective techniques**

Projective techniques are characterised by the presentation of an unstructured or ambiguous stimulus to the individual to which he/she is required to respond. Possible answers that could be generated are almost unlimited since there are no correct or incorrect answers and the individual is not given any indication as to how he or she is expected to respond.

The underlying hypothesis is that the way in which the individual imposes meaning or structure on the unstructured task, the way he/she interprets the ambiguous stimulus reveals aspects of his/her psychological functioning. The individual thus projects his/her inner world onto the "screen" of the stimulus (Anastasi, 1982; Candotti, 1986).

It must be noted that whereas Freud defined projection as a defense mechanism operating to allow unconscious repressed material to make itself manifest in a disguised form, that which is projected in projective techniques is argued to include unconscious needs and emotions as well as thoughts, feelings, hopes, frustrations, motivations, anxieties and conflicts (Candotti, 1986; Steenhuisen, 1987).

Anastasi (1982) identifies the distinguishing features of projective techniques as:

- a) having an unstructured task/stimulus;
  - b) being disguised procedures – the respondent is generally unaware of what their responses will indicate or should be;
  - c) assessing personality globally – that is not attempting to measure specific personality traits; and
  - d) being argued to reveal that which is covert, latent or unconscious in the individual's personality, since the unstructured and disguised nature of the task will not provoke defensiveness in the respondent.
- Lindzey (1961) notes that the task of the interpreter, (or, indicative of projective drawings psychoanalytic foundations, the "analyst") is to bring together the respondent's answer or answers to the stimulus and the underlying motive or source of their response. This does not constitute a simple matching process, however. Any response has a number of determinants, for instance temporary affective states, the respondent's abilities, (for example, good verbal ability is extremely influential in determining responses in projective techniques such as the Thematic Apperception Test (TAT,) and non-verbal or artistic ability contributes to the final product in projective drawing techniques,) the definition of the testing situation, (that is, the meaning the individual attributes to the testing situation), situational factors, (for instance, the physical setting, the instructions given to the respondent,) et cetera.

Various types of projective techniques can be distinguished, for instance:

- Inkblot Techniques (the most popular being the Rorschach)
- Pictorial Techniques (for example the TAT)

- Verbal Techniques (for example the Word Association Test)
- Written Techniques (such as the Incomplete Sentence Blank)
- Expressive Techniques
  - Toy Tests (derived from play therapy, for instance the Sceno)
  - Drawing Tests (for example the Human Figure Drawing (HFD) and the KFD) (Anastasi, 1982; Babiker, 1993).

Projective Techniques have been criticised on a number of grounds. Several of the most important criticisms are:

- poor reliability and validity;
- the interpreter is argued to project his/her own internal world onto the respondent's answer while attempting to interpret it – this does not constitute an objective method of scoring, but is extremely subjective;
- the foundational premise of projective testing, the projective hypotheses is argued to be questionable. It is argued that not only unconscious processes or behaviours are reflected in responses to projective drawings, overt and covert behaviours, the conscious and unconscious, public and private behaviours all play a role in shaping the individual's response to a projective technique;
- responses are very sensitive to (confounding) external factors – for instance slight changes in the instructions given can alter responses greatly;
- scoring systems are dated – they have not recently been revised;
- many stimuli are culturally based and the meanings attributed to them will therefore differ greatly between someone from within and without that culture;
- poor theoretical basis (this is dealt with in greater detail below).  
(Anastasi, 1982; Babiker 1993; Lindzey, 1961).

Proponents of projective techniques, however, argue that:

- projective techniques elicit information which other assessment methods cannot and do not elicit, (it is argued by some to be the only group of methods which are able to tap the unconscious) (Miller, Velkamp & Janson, 1987);
- it is extremely difficult to “fake” responses to projective techniques;

- personality questionnaires are not suitable for assessing personality in children who are younger than approximately 8 years of age, projective methods may be the only means to such assessment (Kline, 1979 cited in Babiker (1993)). (Anastasi, 1982; Babiker, 1993; Lindzey, 1961).

It is emphasised by many writers on projective techniques that these techniques are NOT to be used in isolation, but must be used in conjunction with other psychometric devices and interviews. They are a tool for hypothesis generation (to be further explored using clinical interviews, other psychometric devices, et cetera,) NOT a tool to be used on their own in order to obtain evidence or reach diagnostic decisions or conclusions (Lindzey, 1961; Miller, *et al.*, 1987; Waterman & Lusk, 1993).



## **2.3 Theoretical underpinnings of projective techniques – Psychoanalysis**

Psychoanalytically inclined therapists believe that drawing (like play) is a means by which the child can manage and work through conflict. It is through drawing and play that the unconscious feelings, memories, fantasies, conflicts, family events, et cetera are made manifest, (or rather, since this process is argued to be unintentional and below consciousness, “leaked out”). Once manifested, the child is able to work through the issues, fulfill the fantasies through play or drawing and hence “bring [them] within conscious control” (Krall, 1986 cited in Sadowski & Loesch, 1993, p.116). Play and drawing are also seen to be coping mechanisms in that, when the child feels overwhelmed by an issue, experience, et cetera, by making it the subject of play or a picture, the threat is reduced or, some would argue, renounced, since the overwhelming issue or experience has become play or a picture, within the child’s control, hence, no longer reality (Sadowski & Loesch, 1993). Burgess & Hartman (1993) argue that drawings allow for the expression of information that is too anxiety provoking to be expressed consciously or verbally.

In drawings, unconscious attitudes are assumed to be unintentionally expressed by line quality, disguised shapes, use of signs and symbols, use of space, placement of figures, size of figures, et cetera (Burgess & Hartman, 1993; Golomb, 1992).

Hagood (1992) highlights one of the unresolved issues evident in this theoretical formulation. The frequently observed phallic images in sexually abused children are often identified by the drawer as being something else – a cloud, a tree, et cetera.

This could be interpreted in various ways:

- a) The child purposely drew the phallus, but attempts to disguise/hide this;
- b) The phallus is an unconscious representation arising from the trauma of the sexual abuse, which the child would not be willing to consciously admit to; or
- c) The phallus is a manifestation of normal oedipal fantasies.

Hagood states that further research is required to better understand the occurrence and meaning of phallic symbols in children's art and thus settle the above debate.

It is informative and essential to consider the work of the "founding mothers" of the projective use of children's drawings, that of Machover and of Koppitz.

### **2.3.1 Machover**

Machover's seminal work within this paradigm was based on the assumption that, just as Freud's definition of projection involved the attributing of unconscious attitudes about the self to another individual or other individuals, so drawings of the human figure give an indication of the drawer's body image (1949, cited in Golomb, 1992). That is, it is moulded by the individual's conflicts, anxieties, impulses and "compensation characteristic[s]" (Machover, 1949 cited in Golomb, 1992, p.268). Following on from these assumptions Machover (1949, cited in Golomb, 1992) devised a list of body parts and characteristics of the drawing that were assumed to give an indication of the individual's body image and a key as to how these could be interpreted.

Her strong psychoanalytic orientation is evident in her interpretations. For instance, a circular mouth is seen as indicative of unfulfilled oral needs, the teeth of oral aggression. The relative sizes of items/body parts are seen as indicative of their relative importance - the more important a figure or body part, the larger it is drawn (Candotti, 1986; Golomb, 1992).

Of value, Machover advised that *hypotheses* about the drawer should be based on *patterns* of variables, not single signs. Variables to be considered include not only aspects of the drawing but observations of the drawer during the time in which she/he completed the drawing, interpersonal relations, strong points or positive aspects of the person et cetera (1949, cited in Candotti, 1986).

### **Evaluation of Machover's approach**

Machover's assumptions have not fared well when subjected to empirical research procedures. Her method of providing criteria without first validating these criteria has been criticized. Some of the fundamental assumptions upon which her approach is based are impossible to verify since they are couched in vague, undemonstrable terminology. Her specific hypotheses have not been validated (Golomb, 1992). However, in spite of the lack of empirical support for her approach, Machover's work continues to be used as a basis for many writers and clinicians in the field (Golomb, 1992).

#### **2.3.2 Koppitz**

In 1968 Koppitz published a scoring and interpretation system based on her investigation of Machover's indicators. She retained only those that could discriminate between "normals" and emotionally disturbed children. In this way she retained 30 "emotional indicators" (EI's). Drawings are scored according to the presence or absence of these indicators, and a standard interpretation for their presence or absence is given.

An advance made by Koppitz (1968, cited in Candotti, 1986 and in Golomb, 1992) was a consideration of the developmental appropriateness of her indicators.

Whereas the absence of ears is expected in younger children, its omission in the drawings of older children is argued to have significance.

Candotti, (1986) argues that Koppitz believed that the information shown in a child's drawing included the individual's attitude towards significant interpersonal relations. It appears to the present writer, however, that with Koppitz's (1968) work (cited in Candotti, 1986) came a decrease in the amount of attention given to patterns of signs and other variables to be considered in the interpretation of a drawing, and an increased emphasis on a "cookbook" type approach.

### **Evaluation of Koppitz's approach**

Golomb (1992) criticises Koppitz's (1968) work on several accounts. For instance she argues that Koppitz's sampling was inadequate (control and experimental groups not properly matched, small sample size for each age group and resulting lack of statistical significance for all but 8 indicators). She did not attend to the artistic abilities of her subjects. 24% of the "normal" subjects' drawings showed 1 or 2 emotional indicators (which calls into question the use of a simple matching-between-signs-and-pathology approach). "She continue[s] to use her thirty emotional indicators as if the outcome of her analysis did not invalidate most of her assumptions. Koppitz's (1968) reading of an actual drawing tends to combine interpretive leaps with subjective reference to her list of emotional indicators. When her analysis of the diagnostic significance of the *a priori* chosen signs yielded only limited support for her thesis, Koppitz (1968) basically abandoned the psychometric approach and substituted her clinical intuition for measurement" (Golomb, 1992, p.272).

In view of the above, it may appear as the entire premise on which the clinical and therapeutic use of drawing is based is inadequate, even false. Yet drawings remain a part of the clinician's "tools of the trade". Newer conceptualisations of drawings will be presented in section 2.6 below. Now, however, the KFD will be examined in greater detail since it is the focus of the present research.



## 2.4 The Kinetic Family Drawing

### 2.4.1 Description of the KFD Technique

The KFD technique was originally conceptualised by Burns and Kaufman (1972). It required that the subject or client be provided with a sheet of paper, a pencil and an eraser and that they be given standardized instructions, namely to:

*Draw a picture of everyone in your family, including you, DOING something. Try to draw whole people not cartoon or stick people. Remember, make everyone DOING something – some kind of action.*

(cited in Hackbarth, Murphy & McQuary, 1991, p.257)

On providing the instructions, the therapist/researcher was required to leave the room, and return only when the child's drawing was complete (Golomb, 1992).

### 2.4.2 History of the KFD

Burns and Kaufman (1970; 1972) developed the KFD in 1970. It differed from HFD's in that a group of figures, not simply a single human figure, was required. It differed from the earlier Family Drawing Test (FDT) in that the KFD requires of the child that he/she depicts his/her family engaging in some form of action (the "kinetic" element) (Handler & Habenicht, 1994). Burns (1982) (cited in Hackbarth, *et al.*, 1991, p.257) maintained that the KFD would measure "perceptions of family dynamics, including the self within the family structure." By requiring that family members be drawn engaged in some sort of activity, the KFD was argued to mobilise the child's feelings as regards family dynamics and self concept (Golomb, 1992).

More specifically, three types of information were argued by Burns and Kaufman (1970; 1972) to be indicated by any KFD, namely:

- a) child's perception of self within the family;
- b) child's perception of family members; and
- c) the dynamics of family interaction (cited in Candotti, 1986).



The child's graphic product was then evaluated along four planes:

**Styles** – (characteristics of the drawing indicative of defensiveness and anxiety which arise from poor interpersonal relations),

**Actions and relations between figures**, (the actions and "movement of energy" between figures) (Candotti, 1986, p.72).

**Characteristics of individual figures** depicted (for example, facial features, amount of pressure exerted on the pencil when each figure was drawn, size of self figure, et cetera),

**Symbols** used (objects drawn by the child which are assumed to indicate aspects of the child's internal world - lamps are symbolic of warmth and love, while light bulbs are symbolic of the *need for* love and warmth).

(Candotti, 1986; Steenhuisen, 1987).

More recently, Burns (1982) has utilised a method involving four similar categories to those originally used (cited in Handler & Habenicht, 1994). These are as follows:

**Styles** – as above, the way figures are organised on the page.

**Actions** (the content or theme of the KFD, including the activity each figure is depicted engaging in). The variety of activities potentially depicted are categorised into those symbolising cooperation-operation, communication, masochism, narcissism, nurturance, sadism and tension.

**Physical characteristics** - the formal aspects of the figures (including for instance, the relative size of each figure and facial expressions).

**Distances, barriers and positions** - replacing the category of symbols, and including distances between figures, the number of "barriers" drawn between respective pairs of figures, direction faced by each figure (into the page, towards father), et cetera.

Other researchers and clinicians have created other methods to evaluate KFD's, one of which is Reynolds' (1978) quick scoring guide to the interpretation of children's KFD's on which the present research was based.

Since its inception, the KFD has become an accepted instrument used by psychologists worldwide (Handler & Habenicht, 1994). However, there remain

various opinions as to what the KFD actually reflects.

### 2.4.3 Information obtained from the KFD

Surprisingly, there have been no attempts to reconcile the various conceptions as to what is reflected in the KFD, or to investigate which of these is/are most accurate.

- As has been stated, Burns and Kaufman (1970; 1972) (cited in Candotti, 1986) argue that the KFD gives an indication of the child's perception of self within the family, the child's perception of the various family members as well as giving an indication of the family dynamics or "transactional patterns" (Di Leo, 1973, p.100). Alternatively it may indicate self as reflected and expressed in the family (Handler & Habenicht, 1994).
- Handler and Habenicht (1994) argue that the KFD gives information on interpersonal interactions and emotional relations among family members, revealing conflicts and difficulties, (perhaps this is what Burns and Kaufman (1970; 1972) and Di Leo (1973) refer to as family dynamics and transactional patterns respectively).
- The KFD is argued by others to be a means of studying disturbed *parental* relations and child-parent relations (but NOT sibling relations,) (Sims, 1974, cited in Klepsch & Logie, 1982; Candotti, 1986).
- The KFD may mobilise the child's feelings (Di Leo, 1973) or, according to Cummings (1980), be an expression of the "child's feelings, perceptions, and general affect *for a given moment*" (cited in Handler & Habenicht, 1994, p.443) (emphasis added). In the latter case, the child's drawings can be expected to differ from one administration of the KFD to another.
- Rather cryptically, (or psychoanalytically!) Handler and Habenicht state that "The child's adaptive and defensive responses to the forces and actions of the various family members may be indicated" (1994, p.441).
- According to Burgess and Hartman, (1993) the KFD informs one of the child's perception of protection, safety, nurturance and amount of family support available.

- Ames and Gillespie (cited in Candotti, 1986) suggest that the KFD indicates the child's functioning in every day life, rather than how she/he *experiences* everyday life.
- The KFD is argued to be of no use in predicting behaviour. Rather, it is argued to provide an intimation of the child's perception of self in family (McCallister, 1983, cited in Handler & Habenicht, 1994).

Handler & Habenicht, (1994) raise an important theoretical and clinical issue, associated with these various conceptualisations. They ask whether the KFD represents the family structure "as it is", or the child's wishes about how they would like the family to be. (One could add a third alternative - whether it represents the child's *perception* of the family).

From the above, it appears accepted that the KFD provides some kind of information, but whether this is about self, about others or about self in relation to others, and whether these are in terms of his/her experiences, perceptions, desires, feelings or coping mechanisms remains unresolved. However, that the information it provides is useful in clinical settings is strongly suggested by its continued use despite the uncertainty which still surrounds what it measures, the manner in which it should be scored and interpreted as well as its, at best, shaky theoretical and empirical basis.

It is necessary to discuss the reliability and validity of the instrument, as well as to attend to some of the relevant research. The KFD technique will then be critically analysed.

#### **2.4.4 Research on the KFD**

Various areas of research will be mentioned. Firstly, however, special considerations which must be attended to when researching or reading research on KFD's will be dealt with. Hereafter, research on Burns and Kaufman's (1970; 1972) scoring procedure will be detailed. This will be followed by presentation of research dealing specifically with the KFD's and the Human Figure Drawings (HFD's), respectively, of sexually abused children. Research attempting to determine

whether the KFD measures family functioning will be presented, and finally, attention will be paid to the scoring of the KFD. Subsequent to the discussion on various scoring systems, the scoring method used in the present research will be introduced.

Two types of research can be distinguished, firstly that which investigates, as in the present research, how the KFD profiles obtained differ between different populations. The second appears to have a more clinical, qualitative basis and consists of noting certain characteristics of drawings which appear to have greater frequency among certain populations of children. Both approaches are problematic in that they tend to seduce the user of the drawings into generating an image, based on a composite set of scores, as to what the drawing “typical” of a certain population looks like.

#### **2.4.4.1 Issues in studying the validity and reliability of the KFD**

Any evaluation of the validity and reliability of the KFD is difficult since the majority of research on the KFD has employed modified forms of Burns and Kaufman’s (1970; 1972) original scoring system, has included scoring variables not in the original system, and/or has altered the way in which variables are scored. Moreover, different administration procedures have been used in different studies, rendering comparisons between studies problematic. A further result of this state of affairs, it is argued, is that research on the validity and reliability of the KFD is varied, and often contradictory (Handler & Habenicht, 1994).

In addition, the research methods/procedures assessing the validity and reliability of the KFD do not replicate the way in which it is used in clinical practice. The experienced clinician would not or should not score the KFD by analysing or adding up single signs (Handler & Habenicht, 1994). He or she would also not undertake group administrations of the KFD.

Babiker concludes that the use of projective techniques yield helpful information when used with the interview in a clinical setting. “Their usefulness and value... ‘disappears’ when obtained in the more impersonal and contrived research

setting...significant differences between the projective responding of sexually abused individuals and others; have proven difficult to establish" (1993, p.45). (Original punctuation).

Moreover, not all individuals could be expected to express feelings through art in a similar way. For instance Schacker (1983, cited in Handler & Habenicht, 1994) compared the marital adjustment of parents in their control and experimental groups based on whether the children's KFD's depicted bottom-lining or not. They assumed that the parents of children whose pictures depicted bottom-lining would have poorer marital adjustment, since bottom-lining has been found to be frequent in the KFD's of children whose parents are going through a divorce. Handler and Habenicht, (1994) however, argue that not all children whose parents are divorcing will show feelings in the same way. This has bearing on the present research in that it is unlikely that all children who have been sexually abused will express the abuse, (if at all,) in the same manner, or that each subject will express *all* of the signs having been found to be related to drawings of those who have been sexually abused. This is evident in the variety of research findings on children who have been sexually abused.

Indicators suggesting the occurrence of sexual abuse may be seen in the drawings of non-sexually abused children, (Hibbard & Hartman, 1990, Abstract). This again emphasizes the importance of using projective drawings therapeutically or as supplementary to diagnostic tools, NOT as the sole diagnostic instrument.

#### **2.4.4.2 The validity of individual variables in Burns and Kaufman's scoring procedure**

Candotti (1986) reviewed research on the validity of each of the four major categories of variables identified by Burns & Kaufman (1970; 1972 cited in Candotti, 1986) (that is, style, actions and relations between figures, characteristics of the individual KFD figures and symbols used). For a detailed account of this, and the validity of several of the individual variables, the reader is referred to her study. What follows is a synopsis of her review. It must be noted that the studies reported were conducted on a variety of populations of children, therefore what was found to

be significant with one group of children would not necessarily be significant for another group of children.

#### **a) Style**

Several studies have found no significant differences in the frequency of the style variables between experimental and control groups. Two studies noted higher scores obtained on the “style” subtotal for the control than the “emotionally disturbed” or personality and conduct disordered experimental group. This was argued to be the result of the controls spending more time on their drawings, hence providing more detail (for example bottom lining). Myers, (1978) in contrast, found that the variables top and bottom lining, encapsulation and edged placement occurred more frequently in his “emotionally disturbed” sample than his control group. Possible reasons for this were not given. Thus only one study supports the validity of the “style” characteristics. Compartmentalisation has received limited support for differentiating between diabetic and non-diabetic children. An intriguing inclusion in Burns & Kaufman’s criteria (1970, cited in Candotti, 1986) is the variable “bird’s eye view” which has not been included in any of the reported research.

#### **b) Actions and relations between figures**

Physical proximity (or rather lack thereof) has been found to be significant in younger children (6-8 years old) but becomes more common and hence less significant as children grow older. Orientation of parents, (particularly the father figure), was found to be significant in distinguishing between non- and emotionally disturbed children. For children in regular education, this indicator was found to be a significant predictor of the child’s social self-concept (father facing self -suggesting a better peer- and social self-concept).

- The activity level of the father was found to be significantly related to children in “regular education’s” anxiety level and self-concept (the higher the father’s activity level, the lower the self-concept and the higher the child’s activity level).
- Not all studies found support for physical barriers as representing psychological isolation.

- Finally, “evasions” and “fields of force” were found NOT to be related to emotional disturbance. Candotti (1986, p.81) concludes:

“The majority of validity studies and papers on KFD actions and relationships between figures support the proposals of Burns & Kaufman (1970; 1972). A growing body of research indicates that quantitative scoring procedures can validly discriminate between ‘normal’ and poorly adjusted children.”

### **c) Characteristics of individual figures**

Research done on various populations has provided support for the validity of position of figures with respect to safety, omission of body parts, rotations, evasions and shading in younger children.

- Omission of self received limited support.
- Conflicting results for height of self-figure, erasures and arm extensions were evident.
- Back placement of figures has not been shown to be valid.

Candotti (1986) concludes that research findings offer enough confirmation of the validity of the KFD characteristics to support the use of KFD as a clinical instrument. She notes, however, that not all the characteristics whose validity was confirmed by research were found to be reliable and vice versa.

Both validity and reliability were found for:

- inclusion/omission of self figure
- omission of body parts on the self and other family members
- rotations
- evasions.

The other characteristics, according to Candotti (1986) may be indications of affect experienced at the time of drawing the KFD.

### **d) Symbols**

Candotti, (1986) does not provide a review of research on the validity of symbols since, she argues, interpretation of these may be very subjective or culture specific.

#### **2.4.4.3 Research on the KFD's of sexually abused children**

Johnston (1979) noted that sexually abused children's KFD's depicted dysfunctional family systems, compartmentalization and role reversal. However Johnston's (1979) sample consisted of only ten children ranging in age from five to eleven and no control sample was used. Only two of the ten sexually abused children drew male genitals in their KFD's. Some of Johnston's (1979) interpretations could also be questioned – isolation was argued to be evident when drawings were characterised by compartmentalisation, and role reversal when the child drew him/herself bigger than the parent figure. The latter, however, ignores other factors argued to influence size of figures drawn, for example, self-esteem, anxiety and the importance of the figure to the child (Thomas & Silk, 1990).

Waterman & Lusk (1993, p.154) reported that the KFD's of sexually abused children show "more frightening and disturbing content" in their drawings than those drawn by non-abused children (the operationalisation of this characteristic was, however, not given).

Hibbard and Hartman, (1990) found that, in a hospital setting, sexually abused child patients showed a significantly greater number of indicators of anxiety than did non-abused child patients.

#### **2.4.4.4 Research on the HFD's of sexually abused children and adolescents**

There is a dearth of research on the KFD's of sexually abused children available in South Africa. A small portion of similar research is to be found in unpublished theses in overseas universities on non-South African populations and some in journals not available in South Africa. The HFD's of sexually abused children are more frequently researched, and some of the latter findings are relevant to the present study in that the KFD may arguably be seen as a collection of interrelated human figures, each involved in some sort of action.



Babiker (1993) states that probably the most reliable characteristic distinguishing sexually abused from non-sexually abused girls is that the sexually abused demonstrated greater sexual preoccupation and tend to be “more sexualized.”

This statement is reflected in Burgess, McCausland and Wolbert’s suggestion that children whose drawings show “repeated stylized sexualized figures” (1981, p.56) should be SUSPECTED of having being abused, and this should be further investigated utilizing other techniques (including the interview). Yates, Beutler and Crago (1985) note that the HFD’s of children who have been sexually abused are often characterised as over sexualized OR as asexual.

“Overly sexualized” is defined by some as the depiction of genitalia, breasts (or even belly buttons!) in the child’s drawing of the human figure (Burgess, 1988; Miller, *et al.*, 1987). Others see overly sexualized drawings as evident when the drawer makes a contorted drawing of the “midbody” area or when she/he pays much attention to this area – be it in the form of depicting belts, zips, or excessive detail. This may, less specifically, be an indication of inner psychological conflict around issues of sexuality, hence not very indicative of the likely occurrence of sexual abuse when evident in adolescent’s HFD’s (Sadowski & Loesch, 1993). Sidun (1986, cited in Hagood, 1992) and Chase (1987, cited in Hagood, 1992) independently found a higher frequency of trouser zips in *non-abused* rather than abused adolescents’ HFD’s. They independently argued that since adolescence is a time likely to be characterised by heightened concern about sexuality, such detail could be expected in adolescents’ drawings in general, not only in those drawn by adolescents who have been sexually abused.

Shading and the use of multiple erasures or cross hatches (that is XXX) is generally indicative of anxiety. However, the shading of the genital or oral areas of the drawing is seen to be very suggestive of sexual abuse (Sadowski & Loesch, 1993).

Phallic symbols (often identifiable in the depiction of trees, clouds, telephone poles, *et cetera*) are often indicative of the occurrence of sexual abuse. This is most frequently evident when the child finds these objects difficult to draw, or draws them

in an extremely detailed manner. In the majority of such instances, the child will deny the phallic nature of these elements, insisting that they are a tree, cloud, et cetera (Hagood, 1992; Sadowski & Loesch, 1993). Hammer (1988, cited in Sadowski & Loesch, 1993), in addition, argues that the obvious omission of these elements (that is trees, telephone poles, chimneys, et cetera) from pictures in which they should obviously appear is also indicative of sexual abuse in that it suggests anxiety and/or concern about male sexuality and about relations with men.

Goodwin (1982, cited in Hagood, 1992) found that her sample of children repeatedly attempted to draw the perpetrator and crossed him/her out, and subsequently either depicted him/her with an obvious phallus or gave up their attempt to depict him/her at all.

Creation of clown images in drawings was found by Stember (1980, cited in Hagood, 1992) to occur frequently in the drawings of sexually abused children.

Burgess (1981) also noted that the drawings of sexually abused children frequently show age regression. She stated that drawings of figures regress to being disorganised objects interpretable only by the child. The drawings, moreover, may show sexual contact between people, indicating an age inappropriate knowledge of sex.

Sidun and Rosenthal (1987, cited in Hagood, 1992 and in Sadowski & Loesch, 1993) found that the following indicators suggest a possibility of sexual abuse:

- Omitted hands – suggesting lack of control over situations, helplessness, or guilt about “manual activities” (Sadowski & Loesch, 1990, p.120) (or, according to Sadowski and Loesch (1990), the hands may be oversized, suggesting anxiety or guilt about masturbation, sexual aggression or inappropriate sexual behaviours)
- Omitted fingers (in adolescents)
- Omitted figures
- Head only
- The use of many circles

- Line pressure – with heavier line pressure being more frequently observed in sexually abused children's artwork than in controls.

Cohen and Phelps (1985) argue that a greater number of human physical features are seen in the drawings of sexually abused children than in controls (cited in Sadowski & Loesch, 1993).

As regards incest, Yates, Beutler and Crago (1985) believe that children subjected to incest gain an insensitivity or over-sensitivity to others' sexual characteristics. They state that these are intensified when they are required to draw human figures.

Figures drawn with their legs pressed together may be a further indication of the occurrence of sexual abuse (Hibbard & Hartman, 1990, Abstract). HOWEVER this indicator among sexually abused did not occur *significantly* more frequently in the sexually abused than non-abused sample in Hibbard & Hartman's (1990) research.

Sadowski and Loesch (1990) suggest that possible indications of sexual abuse in drawings be:

- Extremely large circular mouths (evident in cases where the abuse has included oral sex). Sexually abused children may frequently draw an extremely large mouth, which is further emphasised by dark lines. However, the use of "enclosed circles" is developmental in nature and is frequently seen in young children's graphic productions (Kellogg, 1969; and Lowenfeld and Brittain, 1982; cited in Hagood, 1992).
- Hair - hair that is emphasized or drawn as being "excited" may be related to sexual preoccupation. Again, the overemphasis of hair (or its omission) may represent conflictual feelings around virility, sensuality or sexual anxiety, confusion or inadequacy. Long and unshaded hair is argued by Riordan & Verdel (1991) to be frequent in the drawings of sexually abused children (and indicative of sexual ambivalence). (*Writer's note: the cultural applicability of this indicator should be rigorously investigated since what may appear to be "excited hair" in white children's drawings may be an attempt to accurately depict black people's generally shorter hair*).

- Omission of lower body and its parts is interpreted as corresponding to feelings of lack of support, immobility or helplessness, or as denial of the genital region, hence denying own and/or others' sexuality.

Ogdon (1981) hypothesised that the use of stick figures suggests "evasiveness in presenting self or others, poor body image, or poor interpersonal relations" (cited in Sadowski & Loesch, 1993, p.121).

Hibbard and Hartman (1990) found that sexually abused children's HFD's show a significantly greater number of indicators of anxiety than do non-abused children in hospital wards.

It is difficult however, to isolate "signs" indicative of sexual abuse *per se* in that other indicators, less specific to sexual abuse may also be utilised. In addition, drawings are taken *post hoc*, and thus attempt to detect pathology without knowing what the child's drawing would have looked like before the sexual abuse. There is thus no "control" against which to evaluate the drawings. However such analyses are useful to generate *hypotheses* which should be tested through further intervention with the child.

The indicators argued to be suggestive of sexual abuse might suggest emotions and conflicts which have been found to constitute the psychological sequelae of the sexual abuse incidents. On the other hand they may not. Caution is necessary in developing a list of indicators of sexual abuse. For instance the depiction of very small human figures may be indicative of the helplessness and perceived inadequacy often experienced by sexually abused children, or by sexually abused or non-abused children who feel this way for a variety of other reasons other than sexual abuse. Indicators of anxiety present for non-sexually abused children such as the depiction of very large clouds or shading may also be evident in sexually abused children's drawings.

A further difficulty, it is felt, is the identification of both the presence and absence of a particular sign as suggesting the occurrence of sexual abuse. How does one

decide, for instance where along the continuum of asexual through "normal" to "overly sexualized" a particular figure is? How does one decide whether potential phallic symbols (such as trees or telephone poles), should be in a drawing, but have been omitted?

#### **2.4.4.5 Does the KFD measure family functioning?**

Annunziata (1983, cited in Handler & Habenicht, 1994) used a variety of KFD variables and found significantly more psychological emotional indices and psychological inaccuracy in the portrayal of family members in children from divorced families than from intact families.

Sims (1974, cited in Steenhuisen, 1987) compared KFD scores with results of the Family Relations Indicator (FRI), (a standardized picture projective technique investigating family relations between the various family members). Subjects ranged in age from 5 to 15 years of age. It was found that the KFD's were significantly related to the FRI for parental figures, but not for siblings. Sims (1974, cited in Steenhuisen, 1987) thus concluded that the KFD should be seen as a valid technique to investigate disturbed parental relations.

Gardano (1988, cited in Handler and Habenicht, 1994) found significant differences in drawings between children whose father was an alcoholic and a matched control group. She found significant differences in the mean distances between all figures (including between the parents and between the parents and children) as well as in the degree of interaction among family members (the experimental group's drawings gave an overall impression of the family being disengaged). Further differences noted were little variation in size of family members drawn among the experimental group and that the control group drew the mother significantly larger than the experimental group. Again this suggests that the KFD provides an indication of family dynamics.

Two instances of an inappropriate research procedure will be given. Schacker (1983, cited in Handler and Habenicht, 1994) studied a single indicator on children's KFD's, and related these to marital adjustment. He assumed that bottom lining

would be correlated with poorer marital adjustment in the subject's parents. This assumption was based on the finding that bottom lining frequently is observed in the KFD's of children whose parents are divorcing. Not surprisingly, non-significant results were obtained.

Similarly Acosta (1989) used two KFD variables, namely the presence of barriers and distance between figures, to assess the relations between these and measures of family closeness. No significant findings emerged (cited in Handler & Habenicht, 1994).

Handler and Habenicht (1994) state that non-significant findings in these two studies are not surprising since one cannot expect all children to graphically express an emotion in the same way. This therefore is not a fair/appropriate method of studying the KFD's validity. Some of the more appropriate methods do suggest that there are significant differences between the KFD's of children with unhappy and happy home circumstances.

#### **2.4.5 Scoring of the KFD**

As has been stated above, various scoring methods for the KFD have been developed.

Quantitative methods have gained some, (albeit often contradictory), results. The method by which these have been constructed have also been criticised, (see 2.4.4.1 above). Tharinger and Stark, (1990, p.366) also state that although the KFD has achieved "satisfactory interrater reliabilities, they have not been successful at consistently differentiating the drawings of children with and without emotional problems." In view of this, alternative methods have been sought.

Myers, (1978, cited in Candotti, 1986) argues for more sensitive scoring procedures which look, not at individual indicators, but at the combinations in which these occur, for instance, grouping certain variables under more general categories. Raskin and Pitcher-Baker (1977, cited in Candotti, 1986) scored their sample's KFD's according to isolation/rejection. This included the more specific variables of "child separated

from all other family members“, “physical barriers“ and “back placement of figures.” Sayed and Leaverton, (1974, cited in Candotti, 1986) scored their sample of KFD’s according to the variables: “isolation”, “closeness”, “aggression”, “anxiety” and “the denial (or omission) of body parts.”

Tharinger and Stark (1990) developed a qualitative scoring method which attended to the gestalt or overall appearance of the KFD. The rationale for this was that they believed, in practice, it is the gestalt of the picture, not the individual indicators, which clinicians most frequently use to evaluate drawings, (even though no formalised qualitative scoring procedure has been accepted).

The variables that they identified as being considered by professionals in assessing KFD’s holistically are:

*Inaccessibility of family members* - one figure would be unable to reach or go to other members of the family or family members are cut off from access to each other. This includes the inaccessibility of any family member to the child or inaccessibility of the child to family members.

*Degree of engagement* - family members are not appropriately/adequately involved with each other. Even if family members are accessible they may not be engaged. Alternatively they may be almost enmeshed, (“intrusive”).

*Inappropriate underlying family structure* - the family relationships and boundaries depicted are unsuitable. Intergenerational boundaries are blurred and family roles inappropriate.

*Inhumanness of the individual family figures* - figures appear to be animalistic, grotesque or monstrous. If clearly human, they appear to be missing vital parts of their bodies - either because these have been omitted, or because they are disconnected from the figure.

## **2.5 The KFD scoring system as used in the present research**

The present research used one of the standardised methods that have been developed as an attempt to evaluate or understand KFD’s. The scoring system was decided upon since it is relatively easy to administer and score. It does not utilise a composite score, but, through looking at which items were scored, issues for, or

characteristics of the child can be hypothesised. This method was drawn from that used by Tharinger and Stark, (1990) in their research comparing the qualitative versus the quantitative approaches to evaluating the KFD's of mood and anxiety disordered children. The quantitative method they used was, in turn, based on that developed by Reynolds (1978).

Reynolds (1978) proffered his system as a quick reference guide for the development of HYPOTHESES from a child's KFD. He also believed that his system would facilitate the "empirical evaluation" of the technique.

He stated that his "quick reference guide" was not sufficient for a full interpretation of any KFD. Rather, he believed, the KFD should be viewed as a "gestalt", and the child's background, behaviour, intellectual abilities and information arising from other projective techniques should also be borne in mind. Reynolds further stated that his system was to be used by psychologists who were experienced in using the KFD.

He delineated the indicators used in his system from literature on the KFD and from his own experience with "emotionally disturbed children" (1978, p.490). The literature he referred to included books on the KFD, on human figure drawings and on projective techniques in general. He also consulted an unpublished doctoral dissertation and four journal articles. He provided no empirical support for the utility of his system.



The origins of the KFD, its description and research on it have been discussed above. Newer conceptualisations (that is, other than psychoanalytic), of the clinical use of children's drawings will now be forwarded by paying attention to certain theorists working within each paradigm's work.





## 2.6 Newer Conceptualisations of Children's Drawings

### 2.6.1 The contribution of cognitive psychology

#### 2.6.1.1 Burgess and Hartman's event drawing series

Burgess and Hartman (1993), disillusioned with the poor empirical support for the projective use of drawings, have begun to conceptualise drawings as a means to access and assess memories stored at the sensory, perceptual and cognitive level. They define art as a process of translating thoughts, feelings, behaviours and relationships into concrete images.

They argue that information is encoded, processed and organised at a sensory level. Hereafter it is influenced by "higher cognitive schemas," (p. 164). The organisation of an image therefore involves a variety of elements, including, kinesthetic elements, spatial identification and spatial orientation. Recall of emotions, (which is argued to be of particular importance in working with sexually abused children), involves the recreation of physical experiences, images and sounds - this, in turn, involves states of bodily tensions, sensations, ideation and perceptions.

Based on the above, Burgess and Hartman (1993) utilize a method which they call the event drawing series to access and assess the child's thoughts about a specific event. The child is required to draw seven pictures, as specified by the therapist. Each picture is argued to elicit a certain type of information about the event and its consequences. For example, in the first drawing the child is asked to draw his/her favourite weather, and is then asked questions about the weather drawn. This drawing is argued to help the therapist evaluate the child's mood. Other drawings required are of younger self, current self, the event, the family, a house, a tree and a drawing in which the child is encouraged to draw whatever they wish.

In the present writer's opinion, Burgess and Hartman's (1993) technique is a curious mixture of psychoanalysis and information processing. They frame their rationale and understanding of drawing in cognitive terms, yet utilize many psychoanalytic concepts in the interpretation of the drawings obtained. For instance, the drawing of the family is argued to provide information about the child's perception of safety,

protection, nurturance, family support and evidence of conflict in the home. They detect evidence of age regression (in “self” drawings,) and of blocking, denial and avoidance (in the “event” drawings), both of which are essentially psychoanalytic concepts. This leads one to question whether the approach taken by Burgess and Hartman (1993) is indeed a cognitive one, or whether it is simply utilizing earlier techniques and methods partially disguised in a different theoretical framework, (overtly cognitive), but still utilizing psychoanalytic interpretations and premises.

#### **2.6.1.2 Westen’s approach**

Westen’s (1992) approach to *combining* cognitive and psychoanalytic understandings of the self is interesting, and is theoretically more sound than Burgess and Hartman’s (1993) approach. He argues that cognitive representations can be either conscious, unconscious or prototypic. The latter he refers to particularly in connection with the self. The self-concept is, according to Westen, a generalised and prototypic representation of the self, and is one of the variety of representations comprising the self-system or the system of self-representations.

Speaking particularly of sexual abuse survivors, he argues that, as a result of sexual abuse, many currently active self-schemas become inaccessible to consciousness, yet still influence thoughts, feelings and behaviour. Memories (and the associations which may result from these), have a continued influence on one’s life, yet may fall outside of conscious awareness for cognitive and motivational reasons.

Cognitive reasons include:

- associations made at the time of the abuse may fall outside of conscious awareness,
- responses may become so conditioned that the initial stimulus response may be forgotten, and the conditioned response may be made independent from, or contrary to, conscious appraisals. (An illustrative instance of this given by Westen is the flicker of fear on one (formerly sexually abused) client’s face when he closed the door of his office behind her so as to conduct their session in private. The woman was unaware of the expression of fear, and of the

association between being in a private room with Westen, (an older man) and the abusive event at the hands of the perpetrator, (also an older man)),

- finally, the unconscious or preconscious processes which generate or give rise to emotions are not within consciousness but are, nevertheless, cognitive processes.

One motivational reason could be unwillingness to acknowledge associations (such as those between the abuse and current symptoms or what seem to be unexpected behaviours or reactions by the sexual abuse survivor), so as to protect the self. Westen also cites, as a possible reason, a “more global ‘meta-cognitive shutdown’ one often sees in sexual abuse victims, who seem to shut off verbal associations and inhibit active attributional processes because these may lead to distressing thoughts or memories” (1992, p.7). He cites, as experimental support for this, recent research which has indicated that sexual abuse victims have significantly lower verbal IQ (Intelligence Quotient) scores than controls. In view of the latter observation, one could argue that using non-verbal techniques to elicit information, as well as therapeutically, is preferable and superior to using the more conventional verbal methods. One could even go so far as to argue that NOT using non-verbal methods (such as art or psychodrama) could be doing a disservice to the sexual abuse survivor. (Although his research obviously cannot ascertain what sexual abuse survivors verbal abilities were prior to the abuse incident. It may be that people with low verbal intelligence quotients are more likely to be abused than people with greater verbal abilities).

Like Burgess and Hartman (1993), Westen (1992) argues that (self) representations comprise a number of modalities – including sensory based representations (images, smells, tastes, sounds), semantic knowledge and affective representations (that is feelings), which are all associatively connected. Further, at any one time the active self-representations are both conscious and unconscious, with the majority being unconscious, (since most cognitive processing is unconscious). The conscious and unconscious representations active at any one time need not be similar or in agreement. Moreover, the active unconscious representations simultaneously operate to contradict each other. It is through drawings that insights

into the unconscious representations could be obtained and explored effectively since one is using non-verbal techniques.

### **2.6.1.3 Olivier - a South African example**

Olivier (1994) states that children's play, drawings, body movements and behaviours comprise their language. He argues that it is necessary to find mediators for verbal language since the child is unable to verbalise certain memories, concepts, experiences, et cetera. In so doing, Olivier argues, one should ultimately aim at getting the child to a point where these can be verbally expressed (*writer's note - perhaps through therapy?*) Symbolic processes, (the replacing of one item by another not obviously related to it), is the basis of all language, and hence where the child (or adult) cannot use verbal language, forms of symbolisation developed earlier should be used.

Olivier makes extensive use of the dual coding theory. He states that the basic assumption of this theory is that language is mediated by two cognitive systems which are independent but interacting. Visual systems are specialised to organise, transfer, store and recall linguistic information. Non-verbal systems are adapted to store, recall and process sensory information. These interacting systems mediate perception, memory, language and cognition. Emotions are non-verbal, as are the sensory and visual dimensions of the sexual abuse. Thus putting these into words may be difficult. According to this theory it is as, (if not more), useful and legitimate to use the non-verbal mode of cognition and communication as/than the verbal with children.

In view of the above, both psychoanalytic and cognitive reasons could be given for the use of drawings diagnostically and therapeutically. A third approach assumed by still other researchers, theorists and therapists is the phenomenological approach.

### 2.6.2 The phenomenological approach

(from van Niekerk, 1978)

The essence of the phenomenological approach is captured by the following quotation:

“Through information I can understand a case; only through communion shall I be able to understand a person” (Tournier in van Niekerk, 1978, p.13). (Original emphasis).

This approach to analysing child art products attempts to understand the child's experience of *being in the world*. It argues that the best way to get to know someone is through conversation, not a test. Thus the psychologist will attempt, through talking to the child about his/her drawing, to discover the manner in which he/she makes meaning of his/her world. This is to be achieved, not through using a standard list of attributes to be summed up so as to interpret a child's drawing, but rather by looking at the drawing with the child, through the child's eyes. In the “authentic” conversation a shared or communal world is established and becomes further structured through the interpersonal relationship. In this way, the two individuals' separate subjective worlds combine and develop to become a shared inter-subjective world or worldview.

The conversation is determined by the nature of the “being together” of the conversants. Through the give-and-take of sensitive conversation each conversant's own construction of the world is reinforced, not destroyed. Each participant thus feels truly understood, since he/she is part of an intersubjective world created, in part, by him/herself. The intersubjective world-view is interwoven with the objective world, the latter serving as a concrete manifestation of the shared intersubjective world.

Conversation thus involves more than just getting information, it communicates what is hidden. It is through conversation that one obtains authentic knowledge of others.



In practice, however, factors outside of those accounted for by theoretical formulations have been found to influence children's final art products. These, together with a consideration as to why drawings remain so widely used in the clinical setting will be given below.



## **2.7 Factors influencing the final art product**

Several factors should be considered when evaluating all children's drawings, since they exert an influence on the drawing being produced. These include:

- The child's age, sex and whether there is any evidence of neurological damage;
- Amount of drawing experience, (for instance poor or rural children are unlikely to have had as much drawing experience as more wealthy urban children);
- Previous access to drawing materials - children from less wealthy environments may draw small pictures squashed into the corners of their page so as to be able to use the paper again later to draw on;
- Familiarity with the testing situation - children with less education are more likely to feel insecure and anxious in the assessment situation;
- The context within the assessment room - the time at which the drawing was requested may influence the drawing obtained. Was good rapport established before the drawing was done? Did the child just complete an anxiety provoking test procedure or experience failure? Was the drawing requested at the end of the session when the child was tired and concentration is likely to have been low? Mangold (1982, cited in Barnett & Zucker, 1990) found that drawings done immediately after the Rorschach contained more indicators of disturbance than those done after the WISC!
- Artistic talent - a positive correlation between teacher's ratings of artistic talent and psychologist's ratings of adjustment through children's drawings has been found;
- Fine motor coordination - Handler and Habenicht (1994) argue that poor children have less experience with fine motor tasks and more experience with gross

motor tasks than do more wealthy children, and poor children's drawings often obtain a lower score than wealthier children's drawings;

- Visuo-spatial abilities - influence both the representation of a particular object and the relationships between objects;
- Organisational and planning skill - drawing does not simply involve direct translation of a mental image onto paper, but a complex process involving planning and construction;
- Impulsivity - this may affect the placement of figures, their size, etc. Therefore it is crucial to observe the manner in which the child draws, (the child must not be left alone to draw, but should rather be unobtrusively watched). This contradicts Burns and Kaufman's (1970; 1972) initial specification that the therapist or researcher leave the room after having given the child the instruction to draw, (see section 2.4.1);
- Motivation and extent of cooperation;
- "Intelligence" - the child's I.Q. may play a role, although some studies have found that mental age and I.Q. do not correspond with, or affect, drawings produced by children, (perhaps a case for Gardiner's (1993) concept of multiple intelligence?);
- The child's context outside of the assessment room - for instance a child may be drawing a particular image because they are learning about and drawing that thing at school, or may draw in a particular way because his/her friends do so. The child may have seen a horror film the previous evening and hence draw a monster, (one may then, perhaps, want to explore why the child selected to draw the monster rather than anything else);
- Amount of importance ascribed to graphic depiction of the human body in general, and specific parts thereof within the child's social context, and, more broadly, their culture, (as mentioned above).

(Cox, 1993; Golomb, 1992; Handler and Habenicht, 1994; Hagood, 1992; Killian, personal communication; Thomas & Silk, 1990; Yates, *et al.*, 1985).

### 2.7.1 The issue of culture

The child's culture constitutes one special case of factors which have been found to influence the final art product. Therefore consideration of the child's cultural heritage is argued to be important when considering the art product of any child.

Di Leo (1973) boldly alleged that "The Goodenough Draw-a-Man Test is probably as close as we have come to the ideal of a culture-free test of intelligence" (in Cox, 1993, p.101). This assertion was based on the idea that the importance of the human figure is universal, since it has been found to be an enduring drawing topic and certainly one of the earliest.

However, cross-cultural studies have noted that the human figure is not equally emphasised in all cultures. For instance, rural Kenyan children have been found to spontaneously draw houses more frequently than they draw people. Even if specifically instructed to draw themselves, certain cultures will de-emphasise themselves and emphasise their surroundings (Cox, 1993). Children may represent a human, not realistically, but symbolically, similar to the way the words "I", "him" etc. represent humans symbolically, not visually (Cox, 1993).

Aspects of the HFD which are depicted in order to make the picture more realistic may have cultural variations. North African children relatively unexposed to two-dimensional representational art have been found to omit facial features in their HFD's. Unlike Western children, children from certain non-Western cultures often depict genitalia in their drawings, (whereas such depiction in a Western culture is often seen to be suggestive of the drawer having been exposed to sexual abuse) (Cox, 1993). Other cultural differences found include the sex of the first person drawn in the Draw-A-Person (DAP), quadrant of the page most likely to be drawn in, content of spontaneous drawings, (for instance greater number of drawings of war from Bali, China and Yugoslavia), size differences of the various family members depicted in KFD's, use of colour and the depiction of eyes (Cox, 1993; Klepsch & Logie, 1982).



Cross-cultural research on the KFD has, too, found several differences between cultures. Handler and Habenicht note that:

“Clinicians who ignore the multicultural nature of [a] country risk misinterpreting children’s family drawings. Child development has always been understood best in the context of the cultural group in which the child is maturing. Particular family patterns may be experienced differently in various cultures and therefore, understanding normal family patterns of different cultural groups is essential to evaluate abnormality and its effect on the developing child.” (1994, p.450).

Both quantitative and qualitative differences in KFD’s have been noted. For instance whereas a number of Chinese-American children depicted themselves doing homework, none of the Caucasian-American children in a study by Chuah did (1992, cited in Handler & Habenicht, 1994). The latter were more likely to depict themselves engaged in sporting activities. Ledesma (1979, cited in Handler & Habenicht, 1994) found class differences in the drawings of Filipino adolescents - “lower class subjects” tended to draw smaller figures, make more erasures of the self-figure and draw more active family interactions. Upper class subjects tended to draw larger figures and depict the family in more passive interactions. Gregory (1992, cited in Handler & Habenicht, 1994) found that Native American children tended to draw figures at the top of the page while Caucasian children tended to draw figures in the middle of the page.

Habenicht and her students reportedly identified 6 dimensions of the family’s culture which are likely to be expressed in KFD’s. These are:

- a) family structure;
- b) family relationships;
- c) family activities;
- d) daily living activities;
- e) emotional expression; and
- f) work activities.

They argue that it is occasionally possible to infer family communication patterns, but the latter usually necessitates questioning the child on these (cited in Handler & Habenicht, 1994).

Few cross cultural studies on the House-Tree-Person technique have been accessed. One study conducted by Hammer in 1953 exemplifies the arrogance evident when norms based on a white population are directly applied to other population groups. On comparing the drawings of black and white children he deduced that black children were "more maladjusted, hostile and aggressive than white [children]" He stated that black children's drawings were "space constricted, too large for the page, without adequate space framing them and touching or almost touching the edge of the page" (cited in Klepsch & Logie, 1982, p.23). A later replication did not support these findings, (suggesting that his "findings" on the inferiority of black children were more projection of his own feelings than interpretation of research findings!)

Handler & Habenicht strongly oppose the stance taken by individuals like Hammer. They state that :

"lack of drawing experience and the lack of importance placed on the graphic depiction of the human body result in primitive drawings from children whose interpersonal and emotional lives are not at all primitive. It is a mistake to interpret these figures as a representation of pathology...they should be seen as a lack of developmental ability to graphically conceptualize or depict certain details of the environment, due in part to lack of drawing experience...traditional scoring criteria are inappropriate..." (1994, p.454).

In spite of the variety of factors influencing children's drawings, the poor empirical support for drawings, the range of theoretical stances as to the meaning of drawings and the lack of consensus as to what these drawings can show one, they remain part of the toolkit of clinicians. Several reasons have been proposed for this phenomenon.



## 2.8 The enduring popularity of drawings as an assessment and therapeutic tool

Despite the, at best, shaky theoretical foundations and conflicting empirical support obtained for the clinical use of children's art products, they remain widely used. Reasons offered for this phenomenon include:

- They remove the pressure to verbalise (Burgess, *et al.*, 1981), which is of great benefit when working with children who may feel afraid or threatened in the clinical or therapeutic situation.
- They gain access to what the child cannot verbalise due to lack of vocabulary and/or due to information which has direct bearing on the child's emotional state being stored in the unconscious (Burgess, *et al.*, 1981).
- Drawings are believed to be the "most economical route" to the unconscious (Candotti, 1986, p.54).
- Clinicians are confident of their own clinical judgment, hence the empirical weaknesses of projective techniques do not give them cause for concern (Mischel, 1968 cited in Candotti, 1986).
- Clinicians may view their own role as that of an artist, rather than a scientist (Candotti, 1986).
- Drawings can help in the information gathering process – that is they could potentially reveal who the perpetrator of sexual abuse was, the type of abuse that occurred et cetera (Miller, *et al.*, 1987).
- Drawings may help indicate issues which treatment should focus on, for instance if the child has low self esteem or experiences feelings of guilt or self-blame for the abuse (Thomas, *et al.*, 1987).
- Drawings (as opposed to verbal methods or observations) are a permanent record which Miller, *et al.*, (1987) argue can be used some time after they were drawn both in treatment and in court.
- A child's drawings made throughout the therapy process can be compared so as to assess whether changes or improvements have occurred (Miller, *et al.*, 1987).
- Detailed discussions of drawings can take place as often as desired.
- "There is a vividness regarding drawings ... A drawing is worth a thousand words" (Miller, *et al.*, 1987, p.49).

- Drawings are often detailed and indicative of children's feelings about him/herself, his/her home environment and about others.
- Drawings are often a dramatisation of the child's trauma (Miller, *et al.*, 1987).
- Drawing is a means of engaging the child in the therapeutic process (Sadowski & Loesch, 1993) and in Miller, *et al.*'s (1987) experience, an effective way of getting the child to talk as she/he begins to comment on the contents of his/her drawing.

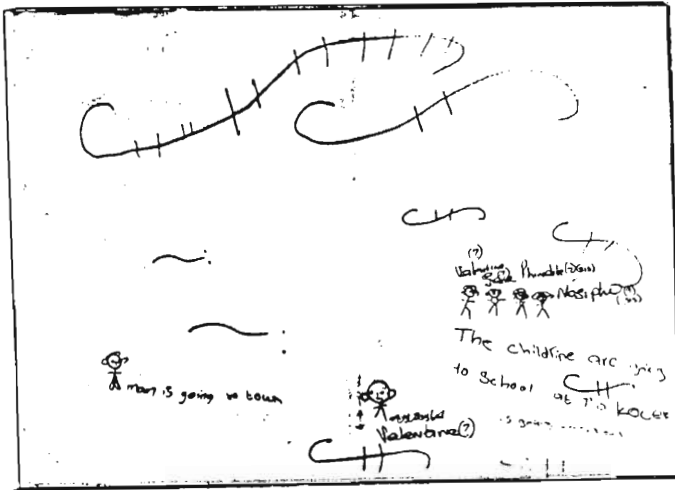


## 2.9 Summary

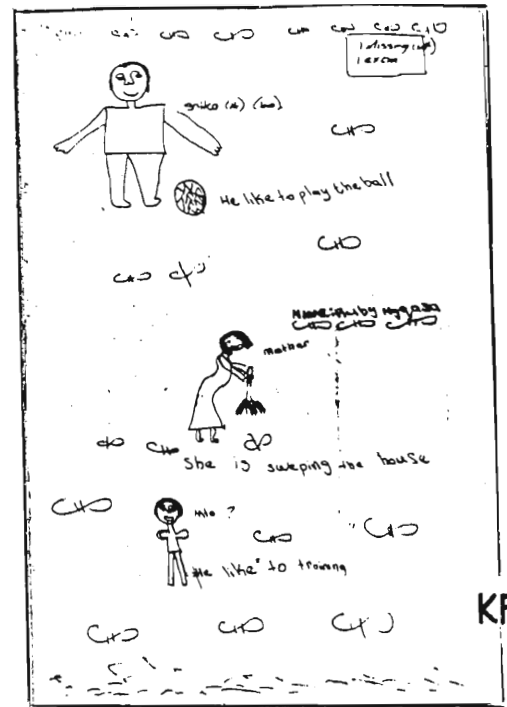
The above review has examined the KFD as a projective technique. The history of the development of the KFD as well as of the projective use of drawings in general has been presented. Relevant research on the KFD's of sexually abused children and adolescents was noted as well as research on the validity and reliability of the instrument. The research presented appears to agree that the KFD does give an indication of something to do with the child and his/her family. However just what this "something" is remains undetermined. A plethora of scoring methods and populations of children has been used in research, making comparison between different studies difficult.

Although certain items or characteristics have been noted to occur frequently in the drawings of sexually abused children, these can also be seen in the drawings of control groups, or of children from other clinical groups, for instance those with anxiety. Certain empirical findings suggest that the KFD may give an indication of parental and child-parent relationships, but not sibling relationships. These are not, however, particular to the families of children who have experienced sexual abuse. Burns and Kaufman's (1970; 1972) method has received limited support empirically, but this is not for all indicators. However Candotti (1986) believes that there is enough support for their categories of "Style", "Actions and relations between figures" and "Characteristics of individual figures" to warrant clinical use of their scoring system. (Her evaluation did not include an analysis of the category "Symbols").

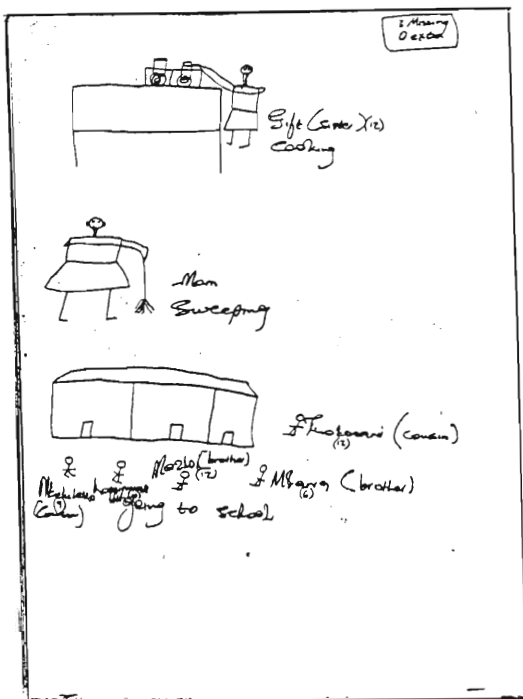
Various dominant approaches to the understanding or interpretation of children's drawings were outlined. This was followed with a synopsis of those factors which have been found to influence children's art products, with a specific focus, of relevance to the present research, on the influence of culture. Finally the enduring popularity of drawings, despite the poor support provided by research, the lack of consensus as to what one can understand from drawings and their sensitivity to confounding external factors was reviewed. It is the continued use of drawings despite contradictory research findings that warrants the present research. If certain robust features emerge, they may be useful to further research. However if no robust features emerge, the present research may serve to sound a cautionary note to clinicians who use this method in their psychological interventions with children.



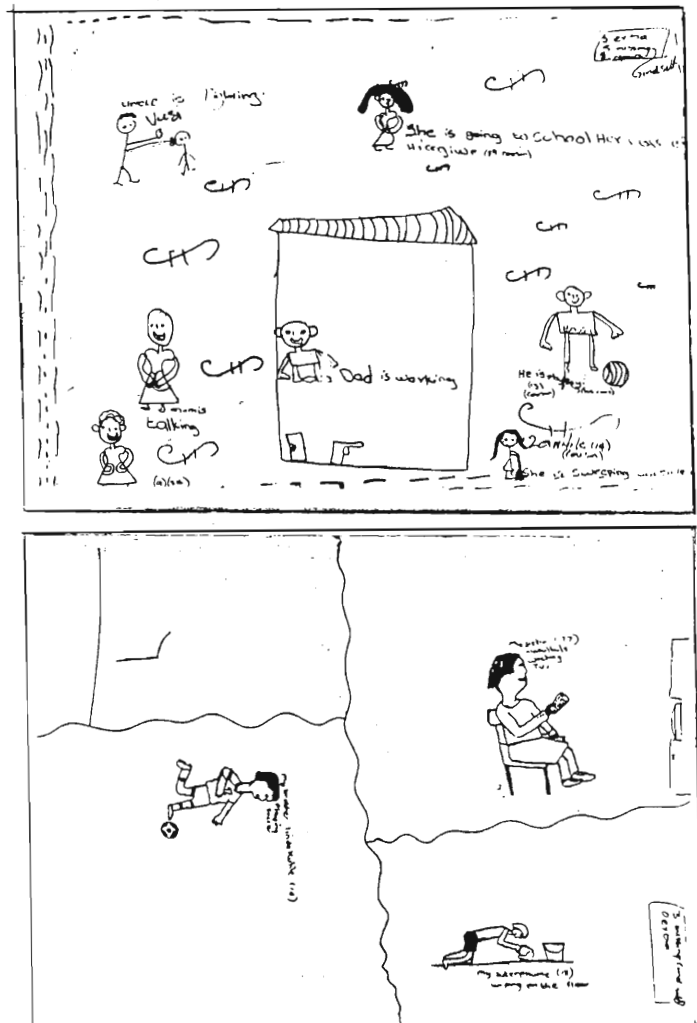
KFD 9



KFD 10



KFD 11



KFD 12

# The research design

## The research design

### 3.1 Introduction

The occurrence of differences in the KFD's of sexually abused and non-referred Zulu girls between the ages of 7 and 11 were investigated. A standard scoring system, based on that used by Tharinger and Stark, (1990) as discussed in section 2.5, and which uses a nominal rating scale was used to score each drawing, (see section 3.5 below for more information in this regard). Demographic data was also obtained for each subject. In the experimental group, information about the sexual abuse, (for instance the identity of the perpetrator(s), number of times the sexual abuse occurred, etc.) was collected. (See Appendix A for a copy of the questionnaire). Use was made of the term "household" rather than "family" due to the different meaning attributed to the relatively abstract concept "family." For some, "family" refers to the nuclear family, for others it includes the extended family, for still others it would include individuals who are not related by birth or marriage, but who are close friends. In view of this, the word "household" was used since it allows for easier operationalisation - it refers to all the people who live in the house.

The method of scoring the KFD's was chosen since the interpretation of children's drawings in a clinical setting is frequently done with the assistance of standard scoring systems. There is further a possibility of increased use of these standard scoring keys due to the increasing focus on the training of "lower level" or auxiliary health care workers who are to receive specialist training in a certain, prescribed field of work. That these scoring systems are structured would be advantageous since they would be less open to misinterpretation. (However, this is obviously dependent upon the validity of these systems).

### 3.2 Process of research

The initial impetus for the present research was provided by the researcher's fascination with children's art products and the various meanings ascribed to them. During the initial stages of the researcher's training, in attempting to establish her own perspective on the

use of children's drawings clinically, her attention was drawn to the predicament faced by health care professionals working in the South African context *vis-à-vis* the use of South African children's drawings...

There is no recognised, standardised scoring system for drawings available that has been developed on Non-western, South African children. Resultantly the user of drawings is obliged to use his/her experience and intuition to evaluate the drawings she/he collects and uses, and/or resort to the systems developed on Western populations.

The present research was therefore an attempt to assess the appropriateness of a particular standardised scoring system for South African populations. The scoring system selected was that developed by Reynolds, (1978), as used by Tharinger and Stark, (1990)

### **Phase 1**

To this end, two lay counsellors were approached who worked at two provincial hospitals in Pietermaritzburg with whom the Child and Family Centre of the University of Natal (Pietermaritzburg) collaborates with on an ongoing basis. These two lay counsellors were at that time making regular use of children's drawings in the course of their therapeutic work with them. This contact was mediated and facilitated by one of the paediatricians who worked in these provincial hospitals.

Since the patients referred to the social workers were predominantly sexually abused females, it was agreed upon to investigate the clinical use of the KFD with sexually abused Non-western girls between the ages of 7 and 11. The social workers agreed to collect the KFD's of 50 female patients meeting these criteria. In addition, since so little was known about the drawings of Non-western females who had been sexually abused, it was decided to collect certain information about the sexual abuse incident(s). Demographic details were sought so as to assist in the evaluation of the drawings, (for instance to assess whether any figures drawn in the KFD were not classified by the child's caregiver as belonging to the child's household).

The two lay counsellors were briefed as to the requirements for collecting data for the present research, and began to collect the necessary data in the course of their



therapeutic work with sexually abused girls meeting the stipulated entry requirements.

For a variety of reasons, (having largely to do with hospital politics), the lay counsellors began to work only in the one hospital, which had historically served African people in the Edendale Valley.

## **Phase 2**

In an attempt to ensure a large enough sample and to speed up the process of data collection, the above-mentioned paediatrician facilitated contact with the paediatric ward at the other hospital at which the lay counsellors had initially been working. The nurses at the paediatric ward were approached to collect the required drawings and information. They agreed to co-operate. They did not manage to collect any drawings, possibly due to the pressured nature of their work, and, it is felt, since the requirements of the present research did not form part of the work which they were employed to do with the children. (That is, they are required to deal with the child's physical needs, pain, etc., not work with the child at a psychological or emotional level)

In the interim, the nature of the lay counsellors' work also gradually began to change until they were largely seeing adult physical abuse survivors, adult rape survivors and AIDS related cases. Further, they lost the 10 drawings which they had collected for the research.

## **Phase 3**

During this time, permission was obtained from the Department of Education and Culture for the researcher to approach a local public school so as to obtain drawings of a group of 50 non-referred girls for comparative purposes. Primary schools in the Edendale Valley which would be appropriate for this purpose and which were thought to be likely to agree to participate in the present research were also suggested.

One of the suggested schools in the Edendale Valley was approached and the principal enthusiastically agreed to allow the pupils at the school to participate in the research. The two teacher-counsellors were also enthusiastic about the school's participation in the research.

Sixty copies of a covering letter, a consent form and a form requesting demographic details (on family composition) were given to the two teacher counsellors at the primary school. They were requested to distribute these forms to a range of Zulu speaking female pupils at the school, from various ages and grades who met the necessary entry requirements. Subjects were required to be between the ages of 7 and 11 with no KNOWN history of sexual abuse. (This obviously does not exclude the possibility that they may have experienced sexual abuse or presently be experiencing sexual abuse, without the school (or even anybody else) being aware of the abuse).

In addition to distributing the original 60 copies, the school made additional copies and distributed these among females meeting the necessary criteria. Since the school is relatively large, and the proposed sample size small, it was not felt that the exclusion of any pupil would be interpreted as discriminatory since the total number of children who qualified for entry into the research far exceeded the number of children who were actually requested to participate in the research. In addition, the research was presented as a study of children's drawings, and did not mention its focus on sexually abused girls *per sé*.

Sixty three parents returned the consent forms, and each girl whose form was returned was requested to participate in the research. Of the 63 KFD's thus obtained, 13 were discarded due to incomplete demographic details or inadequate information being supplied on the subject's KFD. The resulting 50 therefore "qualified" to be used in the research.

The control group drawings were collected at the primary school during school hours on two days. The school's two teacher-counsellors and the two lay counsellors from the hospital were briefed by the researcher as to the procedure for the collection of the drawings. In particular it was emphasised that they were to refrain from suggestion in their interactions with the subjects. That is, the subjects' comments on their drawings, even if they stated that a figure was "just standing" were to be accepted unquestioningly. (The lay counsellors and teachers were, for instance, told to avoid saying "It looks like your mother is cooking in your drawing"). They were also asked to attempt to explore any

inconsistencies in the drawing versus the demographic information in terms of additional and missing figures in the subject's KFD.

A small number of subjects at a time entered a room which had been set aside specifically for the purpose of the present research. A classroom was also later used so as to accommodate the greater than expected number of children who returned their consent forms. Subjects were seated apart from each other such that it was impossible for any subject to copy from any other subject. Supervision was given during this time by the two teachers, the two lay counsellors and by the researcher. As each subject completed her KFD, she took it to one of the supervisors who asked her who each figure in the drawing was and what each figure depicted was doing. At this time it was attempted to clarify any inconsistencies between the demographic data provided by parents and the KFD drawn.

#### **Phase 4**

Due to the change in the client profile seen by the lay counsellors, they were unable to collect the requested drawings. It was decided to approach a non-governmental organisation in Durban who deals primarily with the survivors and perpetrators of sexual abuse to assist with the collection of drawings.

A meeting was arranged between the researcher and the social workers at this organisation. The research proposal was presented and, although drawings did not form part of the manner in which they work with children, the social workers agreed to collect the necessary data and drawings. They were then issued with a written list of instructions for the research, (see Appendix C). They specifically requested that the forms for the collection of demographic data and the standardised instructions be printed in English.

Drawings were collected once the subject and her caregiver(s) had signed the consent form and the required information had been provided. Drawings were collected on an individual basis by the social workers at the organisation. As with the control group, the social workers inquired of the children who each figure depicted was and what each figure was doing, abstaining from all forms of suggestion. Since the researcher did not work at or near the organisation, weekly or bi-weekly telephonic contact was made by the researcher with the organisation so as to keep up with the progress of the collection of the

drawings and to remind, encourage and motivate the social workers to continue to collect the drawings.

Due to time limitations, it was decided (after approximately eight months), to begin the process of scoring the data when only 14 useable drawings had been collected by the organisation.

### **3.2.1 A comment on the samples selected**

Due to the difficulties experienced in securing experimental group subjects, sample sizes in the present research are small.

Since convenience sampling was used and subjects so difficult to obtain, there was no control for factors such as whether the sexual abuse was intra- or extra-familial, whether it occurred on a single event or was repeated or regular, the nature of the sexual abuse, et cetera.

The KFD's of the control and experimental groups were unavoidably collected under vastly different conditions, for instance the experimental group's drawings were collected in a one to one situation, while those of the control group were collected in small groups.

No attempts were made to establish the socio-economic status of subjects since it was initially intended to compare drawings made by young female patients of the Edendale Hospital with those of a nearby primary school which, it was assumed, would have pupils much like those presenting at the hospital.

## **3.3 Process of scoring of data**

### **3.3.1 Initial scoring**

Initially the KFD's of 50 control group subjects and of 14 experimental group subjects were used. Two scorers participated in this stage of the research. One scorer was completing her M.Ed. (Educational Psychology) internship, and had been trained at the Rand Afrikaans University. The second scorer was completing her training for registration as a psychometrist and had completed her Honours in psychology at the University of the

Witwatersrand. Both scorers were well-versed in the clinical, projective use of children's drawings.

Scorers were briefed on the purpose of the research and the scoring system was discussed. Any confusion or uncertainty as to the composition of each indicator was clarified through discussion. Each scorer was issued with a handout containing the operationalisation of the indicators. Examples of several of the more difficult criteria were presented. A "manual" depicting each criterion was also made and given to each scorer. Subsequently, actual examples were scored together. (These examples comprised drawings that had been collected but which were not included in the research due to incomplete information being supplied by the child's caregiver(s)). Discrepancies between the two scorers' scores were discussed until agreement was reached.

Each scorer was then given 32 drawings to score at her own leisure. (The research was therefore a single-blind study in that drawings were coded, making the distinguishing of the control versus experimental groups impossible).

In order to statistically calculate the interrater reliability of the scoring system, 6 drawings from each scorer were subsequently scored by the other scorer. The interrater reliability on this combined sample was so low (40,35% agreement) that it was decided to rescore selected drawings attempting to match the subjects from the experimental group with 14 subjects from the control group.

### **3.3.2 Second scoring**

In view of the decision to rescore the drawings, the operationalisation of indicators was examined once again and minor adjustments made, (see Appendix D and Appendix E to compare the two sets of indicators). In addition, a new exploratory indicator was included, due to the number of "additional" figures observed in the drawings. (These are combined with "missing figures" in the initial scoring system). Two new scorers participated, both were completing their Masters in Research Psychology at the University of the Witwatersrand. The two new scorers were introduced to the research and practice examples in a manner similar to the process followed with the first set of scorers. Both

scorers had extensive previous experience in working with both KFD's and HFD's.

It was decided to increase the power of the statistics for examining the interrater reliability by getting both scorers to score a greater number of drawings. Resultantly the control group was reduced to 14 subjects, matched with the experimental group according to age, family size, and where possible, approximate family composition. All drawings were then scored by each of the two new scorers, (each scorer scoring all 28 drawings).

Drawings to be used in the research were randomised and divided equally between the two scorers. On having completed their initial drawings, they swapped so as to each score all 28 drawings. They worked independently on scoring the drawings so as to avoid discussion of difficulties they were having with identifying indicators. (This obviously would have created an inflated, inaccurately high level of interrater reliability). The research could be considered to be a single-blind study since scorers were unaware as to whether any particular drawing was part of the control or the experimental group. Scorers were also unaware of any of the subjects' information other than the age of the subject and the number of people both missing and extra in the KFD in question. (The latter was to enable the scorers to evaluate the criteria *Number of household members absent* and the exploratory item - *Number of additional figures*). Each scorer was provided with scoring sheets and therefore scored the drawings at their own leisure.

Since results from the first set of scorers have been discarded, all information below refers to the 14 subjects from the experimental group and the matched subjects from the control group, as scored by the second set of scorers, (scorer Q and scorer R).

### **3.3.3 Descriptive account**

The 28 KFD's were subsequently perused by the researcher in order to attend to and describe frequently observed characteristics or features of the drawing which are not provided for in the scoring system. This allowed for an evaluation of what is not covered by the standardised scoring system, rather than simply being used for purposes of comparing the control and experimental groups. This approach is contended to be more similar to the manner in which KFD's are used in clinical practice than use of the quantitative approach alone.

### **3.4 Details of subjects participating in the research**

It was deemed necessary to collect details from each subject's caregivers as to the composition of her household so as to determine who could be expected to be depicted in each subject's KFD, and hence the missing and additional figures.

#### **3.4.1 Control group**

The control group consisted of 14 Zulu speaking females between the age of 7 and 11, with a mean age of 9 years 5 months. 4 of these subjects (29%) of the children lived in households where there was no father present and one of the subjects (7%) in a household with no mother present. The mean number of household members per family was 6,64.

#### **3.4.2 Experimental group**

Since it was initially envisaged to have a much larger experimental group, (consisting of 50 subjects), and since so little is known about the drawings of this group of children, it was decided to obtain certain factual information about the sexual abuse incident(s) from each child's care-givers. (See Appendix A for a copy of the information sheets used). It was thought that differences in the frequency of the abuse, the relationship of the child to the perpetrator, etc. might influence the nature of the drawing produced. However, since so few drawings were finally used in the research, no exclusionary criteria based on these factors were used, and no comparisons between subjects who differed in terms of, for instance, the frequency of sexual abuse, were made.

In spite of the relatively diminished sample which was actually obtained for the present research, the information obtained is presented in an attempt to begin to describe the individuals in this sample who differ widely in their respective experiences as regards the sexual abuse.

Due to the fact that the experimental group was comprised of children presenting at an organisation, convenience sampling was used, (subjects were selected on the basis of presenting at the organisation, meeting the necessary age, language, etc. criteria, when the social workers felt able to collect the necessary data, etc.).

Of the 26 protocols obtained by the social workers at the organisation, 14 were used in the present research. The remaining 12 were rejected due to having incomplete information, or to being drawn with crayon or pen.

This sample consisted of females who were Zulu speaking and who were between the age of 7 and 11, with a mean age of 9 years 4 months (3 subjects' ages were not supplied). All were brought to the organisation as a result of reported sexual abuse. See the series of tables (at table 3.1 below) for presentation of this information.

In 42,86% of the subjects' families, their parents were married, while the percentage of children from unmarried families was slightly higher, at 57,14%. 35% of the children (5 children) lived in households where there was no mother present and similarly 5 children (35%) in households with no father present. A further 2 children (14%) lived in a household with neither mother nor father present. The mean number of household members per family was 6,71. In 50% of the subjects, the subject's father was classified as the household head, followed by the mother or the grandmother separately being classified as the household head, (14,29% for the mother and grandmother respectively). For one subject each, their stepfather, their foster mother and their uncle was considered to be the household head, (7,14% each).

**Table 3.1(a) Number of times abused**

	Once	Twice	Three times	Regular abuse
No. of subjects	11	1	1	1
Percentage	78,56%	7,14%	7,14%	7,14%

**Table 3.1(b) Period over which abuse continued**

	One instance only	Thrice over 4 days	Twice over months	Unknown
No. of subjects	11	1	1	1
Percentage	78,58%	7,14%	7,14%	7,14%



For the majority of subjects (78,56%), the sexual abuse occurred on only one occasion, (Table 3.1 (a)). In one case each, (7,14%), the sexual abuse occurred on two occasions and on three occasions. For one subject the sexual abuse occurred an unspecified number of instances (Table 3.1 (a) over an unspecified time period (Table 3.1 (b)). One subject was abused twice over a period of 3 months, and another on three occasions over a period of 4 days. The remaining 11 subjects were sexually abused on one occasion only, (Table 3.1(b)). Notable here is that, for the majority of the children, the sexual abuse consisted of a singular incident. In only one case was the sexual abuse frequent and of long duration. For one subject the abuse was frequent, perhaps regular. In this case the period of abuse was unknown, her stepfather had sexually abused her over an unspecified length of time and she was also sexually abused by a neighbour (Table 3.1(c)).

**Table 3.1(c) Multiple abuses - same perpetrator each time**

	<b>Yes (same)</b>	<b>No (different)</b>	<b>Not applicable (only 1 instance of sexual abuse)</b>
No. of subjects	2	1	11
Percentage	14,29%	7,14%	78,57%

**Table 3.1(d) Subject's relationship with perpetrator**

	<b>Step-father</b>	<b>Family Member/ friend</b>	<b>Individual not known to subject</b>	<b>Unknown identity</b>	<b>Neighbour</b>
No. of responses	1	3	1	2	8
Percentage	6,67%	20%	6,67%	13,33%	53,33%

*Note: Total number of responses = 15 since one subject was abused by both her stepfather and a neighbour.*

*"Individual not known to subject" = a stranger*

*"Unknown identity" = it is not known who the perpetrator was, it could have been someone known to the child, or someone not known to the child.*

The majority of sexual abuse acts were perpetrated by one of the subject's neighbours (8

cases, 53,33%) (See Table 3.1(d)). In 21,43% of cases, (3 subjects), the perpetrator was a family member or friend of the family, (this category may include neighbours since the latter category was not stipulated in the data sheet). For one subject the perpetrator was “unknown”, that is the family had no idea who the perpetrator was, he may have been a stranger, someone known to the family or a family member. For only one subject did the perpetrator form part of her nuclear family, (and in this case she did not live in the same household as he did at the time at which her drawing was collected).

Of the three incidents occurring more than once, and in both cases in which the subject was abused twice, the respective perpetrators were the same on both occasions. For the third subject the abuse was perpetrated on separate occasions by two different perpetrators.

**Table 3.1(e)      Location of abuse**

	Own home	Bush	Perpetrator's house	Grandmother's home	Unknown
No. instances	4	5	5	1	1
Percentage	25%	31,25%	31,25%	6,25%	6,25%

*Note:*            Total number of instances - 16 since 2 subjects were sexually abused in more than one place.

The most frequent location for the perpetration of the sexual abuse incident was in the bush or at the perpetrator's house (which may be due to the fact that the majority of perpetrators were neighbours of the respective subjects). This was closely followed by the frequency with which the perpetration of the sexual abuse occurred in the subject's own home.

**Table 3.1(f)      Age at which abuse occurred**

	4	5	6	7	8	9	10	11
Abuse started	1	1	3	2	1	3	2	1
Abuse ended	1	1	2	2	2	3	2	1

*Note:*            For one subject, the abuse began when she was 6 years old and ended when she was 8.

The age at which the abuse began, or occurred (if it was a single incident) ranged from 4 to 11 years of age. Similarly the abuse ended when subjects ranged in age from 4 to 11 years of age. The subjects were therefore sexually abused at a range of ages, hence differing amounts of time elapsed between the incident and the subject's presentation at the organisation concerned for therapeutic intervention.

**Table 3.2(a) Relationship between subject and person who took the subject to the organisation**

Mother	Father	Foster mother	Family member/friend
7 (64,28%)	2 (14,29%)	1 (7,14%)	2 (14,29%)

**Table 3.2(b) Length of time after disclosure that subject was taken to the organisation**

More than one week	Within one week	Immediately
11 (78,57%)	2 (14,29%)	1 (7,14%)

In the majority of instances, (64,29%), the subject's mother brought her to the organisation. In 14,29% of cases each, the subject's father or a family member brought her to the organisation. In one instance it was the subject's foster mother who brought the child to the organisation. Only one subject (7,14%) was taken to the organisation immediately after the abuse was discovered. Two subjects were taken within a week of the abuse being disclosed, (14,29%). For the remainder, (78,57%), their presentation at the organisation occurred more than a week after the abuse was divulged (Table 3.2.b).

### **3.5 Instruments used**

Each subject (both in the control and experimental groups) was provided with a blank sheet of A4 paper. They each had an eraser and an HB lead pencil. After being introduced to the research, (which was presented to them as a study of children's drawings), they were given the standard instructions for KFD's (translated into Zulu – Appendix G):

*Draw a picture of everyone in your family, including you, DOING something. Try to draw whole people, not cartoons or stick people. Remember, make everyone DOING something - some kind of action.*

In view of poor scientific or research support for the original Burns and Kaufman (1970; 1972) scoring systems, it was decided to use a system based on Reynolds' (1978) criteria, following Tharinger and Stark's (1990) research with mood and anxiety disordered children. (These items appear on the left of the scoring sheets in Appendix D. The operationalisation of criteria is provided in Appendix E). Additional criteria were used, based on the indicators of sexual abuse provided by research on HFD's and one exploratory indicator was added. (These appear on the right of the scoring sheets in Appendix D).

### **3.5.1 The translation process**

Translation of the standardised instructions was undertaken since no standardised instructions in Zulu were accessed by the researcher. It was hoped that this would allow for uniformity in the manner in which drawings were requested of the children, in their home language. To this end, the English instructions were translated by someone whose mother tongue is Zulu, but who has completed her Bachelor of Arts degree at an English university, (suggesting proficiency in both English and Zulu). Hereafter, the translated version was given to the lay counsellors to evaluate and to suggest any necessary changes. The translation was also given to an Educational Psychology Masters student who spoke Zulu, so as to obtain her input. Any requested changes were made and the Zulu instructions were given to the lay counsellors for their use. The drawings for the control group were collected using the Zulu translation of the standard instructions. (See Appendix G for the Zulu translation of the standardised instructions).

However, the social workers at the non-governmental organisation who collected the experimental group KFD's stated that they wanted the standardised instructions in English for their work with the subjects.

This difference is likely to influence the results obtained in the experimental versus the control groups.

### **3.6 Data analysis**

Two scorers participated in the initial data analysis. The demographic data and scoring sheets were then analysed using the Statistical Package for the Social Sciences computer programme, (SPSS). Since this computer programme produces voluminous output, all results have not been included in the appendices. Interested individuals may obtain all output on request.



## The results

### Introductory note:

The results presented below will comprise two sets of comparisons:

- results obtained on the scoring system by scorer Q versus those obtained by scorer R;
- results obtained for the experimental versus the control group.

### 4.1 Interrater reliability

The method for determining the interrater reliability has been outlined above (see section 3.3). This statistic was calculated to evaluate the degree of subjectivity of the various indicators used, the scoring system as a whole and, related to this, the adequacy of the operationalisation of the indicators, (since Tharinger and Stark's (1990) definitions could not be obtained, and since the AI's (Abuse Indicators) had simply been drawn from the literature).

#### 4.1.1 Initial scoring

On the 12 drawings initially used for determining the interrater reliability, scorer Q scored a mean of 10,833 indicators per drawing, (SD=3.81), and Scorer R, on average, 11,917 indicators per drawing (SD=3.288). There was not a significant correlation between the indicators scored by the two scorers ( $r=.188$ ).

Of the 12 drawings scored by both scorers, complete or 100% agreement was only reached on 23 of the 57 indicators used in the present research, (that is 40,35% agreement overall).

#### 4.1.2 Second scoring - Overall number of indicators scored

All 28 drawings were scored by both scorers. (That is the 14 drawings which comprised the experimental group subjects and the 14 control group subjects, matched overall for age, family size and where possible approximate family composition). This then formed the entire sample of drawings used in the present research. Scorer Q

scored a mean of 11.64 indicators per drawing, (SD=4.42), and scorer R, on average, 13.82 indicators per drawing (SD=4.27). The actual individual indicators scored by the two scorers correlated significantly, ( $r=.7809$ ,  $p<.001$ ). However, in total, scorer R scored significantly more indicators per drawing than scorer Q, ( $z=-3.39$ ,  $p=.0007$ ).

#### 4.1.2.1 Individual indicators showing high level of agreement between scorers

It was decided to examine the interrater reliability of each individual indicator using Kappa statistic, (Howell, 1997). This statistic is a more stringent test of reliability than simply calculating the percentage agreement in the two-by-two tables and takes chance agreement into account - removing from the calculation the likelihood that the level of agreement reached was by chance. In addition, two-by-two chi-square tests were done on each indicator since neither Howell nor the SPSS Version 6 gives significance tests for Kappa. Chi-square results ranged from  $\chi^2=.08$ ,  $p=.78$  to  $\chi^2=28.0$ ,  $p=.00$ .

Complete or 100% agreement is thus indicated when Kappa = 1.00. Complete agreement also, arguably, includes those indicators which both scorers did not score at all, hence agreeing that the indicators were not at all present in all of the drawings presented to them. The scorers thus reached complete agreement on 14 of the 57 indicators used in the present research - that is indicators which were scored for the same drawings on each occasion and those which were not scored at all. It is notable that although the first scoring yielded a higher level of absolute agreement (23 indicators), the overall extent of disagreement for the second scoring was lower. The latter indicators appear below - Table 4.1. (The number preceding the indicator name refers to the number given to the indicator on the present scoring system.)

**Table 4.1 Indicators showing high level of agreement (Kappa = 1)**

<b>100% Agreement - Kappa=1</b>
16 Rotation of figure (45°)
33 Buttons
34 Jagged or sharp fingers, toes, teeth
35 Bizarre figures
38 Sexual characteristics on figures - breasts



From the above, it is evident that certain of the more “objective” indicators, (for instance *Indicator 33 - Buttons*) reached highly significant levels of agreement. However, certain of the more subjectively evaluated indicators, (for instance *Indicator 35 - Bizarre images*) also obtained high levels of significance. This may be surprising, considering the degree of subjective evaluation required. A further contributing factor could have been the decision taken by the scorers and the researcher to score conservatively - that if the scorers were in doubt about an indicator, they should rather not score it.

**Table 4.2 Indicators which could not be calculated due to not being scored by either scorer**

<b>100% Agreement – category collapses</b>
7 Fields of force (fires)
9 Fields of force (X's)
19 Folding compartmentalism
31 Line quality – unsteady
39 Sexual characteristics on figures - genitals
50 Sexual contact between figures
52 Legs pressed together
55 Emphasis on circles
57 Clown images

The above-mentioned indicators were not scored at all. This could possibly suggest that they are of little relevance to the present populations, or that, for the majority of the experimental group, the sexual abuse was not recent, and hence their associations with the abuse incident, or level of trauma experienced as a result of it, may not be as acute. It may also, however, be that the scorers were uncertain of certain of these indicators and therefore did not detect the characteristics of the KFD's which would warrant the particular indicators being scored. It is worth noting that in Tharinger and Stark's (1990) research, too, certain of the indicators were not scored at all by either scorer for any of their samples studied, suggesting, too, that those indicators may be of little relevance to the populations being studied (or to the scorers!)

The Kappa statistic could not be calculated for another 7 indicators due to their being scored by only one of the scorers. Another 22 indicators obtained high levels of agreement - defined here as being  $Kappa \geq .6$ , (again, since neither Howell, (1997) or SPSS Version 6 provide levels of significance).

**Table 4.3** Indicators which could not be calculated due to only being scored by one scorer

Category collapses
14 Position of any figure with respect to safety (scorer R)
20 Underlining of individual figures (scorer R)
21 Lining at bottom of page (scorer R)
22 Lining at top of page (scorer R)
30 Line quality – heavy (scorer Q)
48 Hair long and unshaded (scorer R)
53 Head only (scorer R)

#### 4.1.2.2 Individual Indicators showing low level of agreement between scorers

Six of the 57 indicators obtained low levels of agreement, (considered for the present research to be Kappa  $\leq .4$ ). These are tabulated below:

**Table 4.4** Indicators showing low levels of agreement

Indicator	Kappa
4 Relative height of child (big)	.06
12 Arm extensions to any figure	.12
13 Description of drawings not same as drawing	.24
23 Edged placement of figures	.05
29 Line quality - light	.24
44 Increased number of physical features on subject	.36

It is possible that the scorers had different understandings as to the composition of Indicators 4 and 23, since these are relatively clearly defined, and hence require little subjective judgment, (see Appendix E). This would account for the discrepancies between the two scorers, which could influence the total number of indicators scored per drawing.

The remaining indicators require more subjective evaluation, which could result in low interrater reliability and could, in addition, have been understood and hence evaluated differently by the two scorers, again resulting in lower interrater reliability.

## 4.2 Control versus experimental groups

### 4.2.1 Control versus experimental groups - Total number of indicators scored

The total number of EI's and AI's respectively scored for the experimental group versus the control group as well as the total number of EI's and AI's combined scored for the experimental group versus the control group, were calculated. (That is the total number of indicators scored calculated by adding up the sum of firstly the EI's, then the AI's, then the EI's and AI's together). Non-parametric tests were used since the frequency distribution was not expected to be normal, since scores could range between 0 and 58, with the expectation of many ties and very few, if any, scores at the upper and lower ends of the possible range of scores.

Mann-Whitney tests were calculated for the total of each the experimental and control subjects' scores, calculated for each scorer separately. According to these Mann-Whitney tests, using the present scoring system, neither scorer could distinguish between the control and experimental groups.

**Table 4.5.a Scorer Q: Mean number of EI's, AI's and total, and Mann-Whitney and level of significance for each the EI's, AI's and total**

	<b>EI's</b> <b>μ (S.D.)</b>	<b>M-W &amp; p.</b>	<b>AI's</b> <b>μ (S.D.)</b>	<b>M-W &amp; p.</b>	<b>TOTAL</b> <b>μ (S.D.)</b>	<b>M-W &amp; p.</b>
Experimental Group	8.29 (3.0)	U=84 p=.51	3.07 (2.27)	U=94.5 p=.87	11.36 (5.00)	U=91.5 p=.76
Control Group	9.14 (3.25)		2.79 (1.42)		11.93 (3.93)	
TOTAL	8.71 (3.1)		2.93 (1.86)		11.64 (4.42)	

Table 4.5.b Scorer R: Mean number of EI's, AI's and total, and Mann-Whitney and level of significance for each the EI's, AI's and total

	EI's		AI's		TOTAL	
	$\mu$ (S.D.)	M-W & p.	$\mu$ (S.D.)	M-W & p.	$\mu$ (S.D.)	M-W & p.
Experimental Group	10.43 (3.18)	U=82 p=.46	4.14 (1.84)	U=86.5 p=.59	14.57 (4.26)	U=77 p=.33
Control Group	9.43 (3.44)		3.64 (1.5)		13.07 (4.31)	
TOTAL	9.93 (3.29)		3.89 (1.66)		13.82 (4.27)	

The control and experimental groups did not therefore differ significantly in the mean number of indicators scored for the respective groups of EI's and the AI's (separately), or in the total number of indicators; (comprising the sum of the two aforementioned groups of indicators).

There is, however, a significant positive correlation between the mean number of EI's and AI's scored, ( $N=28$ ;  $r=.56$ ,  $p=\leq .001$ ). This suggests that children who exhibit a large number of indicators contended to be suggestive of emotional difficulties or disturbance are more likely to exhibit those indicators purportedly suggestive of sexual abuse. (Considering that it was impossible to determine whether any of the control group had been sexually abused, but had not been referred, it is possible that there were some sexually abused, non-referred girls among the control group. If this is so, it is possible that sexually abused children may exhibit, in addition to AI's, a greater number of EI's).

#### 4.2.2 Control versus experimental groups - individual indicators

It was considered to combine the scores scored by each scorer Q and scorer R for each indicator. This would have resulted in each subject being able to score a 0, 1 or 2, which would have required two-by-three chi-square calculations. It was anticipated in view of the significant level of interrater agreement that there would have been many empty cells and many cells with low expected frequencies. Even if analysed with Mann-Whitney tests, it was anticipated that there would also have been ties if the 0's, 1's and 2's were treated as individual scores. It was therefore decided to compare the indicators marked by *each scorer* individually across the experimental group versus the control group.

When legitimate, chi-square levels of significance are reported. In several instances the expected and observed frequencies were extremely low, in these cases SPSS automatically transforms these to Fisher's Exact Test, (one tail significance) which can be used to determine levels of significance when at least one cell contains a frequency less than 5. Only significant results and those approaching significance are reported below, for the complete table see Appendix F.

As has been referred to above (table 4.2 and table 4.3), for certain indicators there were no observed frequencies for both the experimental and control groups, as scored by one or both scorers.

**Table 4.6 Significance level of difference between individual indicators - Experimental versus control groups**

N O.		INDICATOR	INCIDENCE EXPERIMENTAL		INCIDENCE CONTROL		SIGNIFICANCE (p)	
Emotional Indicators			Scorer Q	Scorer R	Scorer Q	Scorer R	Scorer Q	Scorer R
4		Relative height of child (big)	5	1	10	0	.058*	.5
1 7		Encapsulation	3	2	7	8	.11*	.02*
2 5		Evasions	5	9	4	4	.5	.06*
2 8		Figure(s) on back of page	3	4	0	0	.11	.05
2 9		Line quality - light	5	11	10	14	.06*	.11
3 7		Transparencies	6	9	4	3	.43*	.02
Sexual Abuse Indicators								
5 6		Phallic symbols	7	6	8	11	.7*	.053*

\* Chi-square significance reported - all cells containing observed frequencies  $\geq 5$ .

Significant differences were therefore found, between the control and experimental groups in the following indicators:

- 17 Encapsulation  $\chi^2=5.6$  (df=1, p=.018) (Scorer R)
- 28 Figure(s) on back of page  $\chi^2=4.67$  (df=1, p=.049) (Scorer R)
- 37 Transparencies  $\chi^2=5.25$  (df=1, p=.022) (Scorer R)

Indicators approaching significance were:

- 4 Relative height of child big (Scorer Q)
- 25 Evasions (Scorer R)
- 29 Line quality - light (Scorer Q)
- 56 Phallic symbols (Scorer R)

It is notable that other indicators were scored with no difference in frequency between the control and experimental groups (Fishers Exact =1.00). They thus had no discriminative ability. These were:

- 6 Fields of force (balls) (Scorer R)
- 33 Buttons (Scorer Q)
- 51 Omitted hands (Scorer Q & R)
- 58 Number of additional figures(Scorer R)

#### **4.2.2.1 Further analysis - Indicator 27 - Number of household members absent**

There was no significant difference between the experimental and control groups on Indicator 27 - *Number of household members absent*, Scorer R  $\chi^2 1.29$  (df=1, p=.26) and Scorer Q  $\chi^2 .58$  (df=1, p=.45) . However the category was further reduced to examine who the household member(s) most frequently omitted from each child's drawing was/were. From the demographic information supplied by each subject's caregiver(s), the expected household members were determined. Due to the extremely small numbers that analysis of these results would involve, observed frequencies are tabulated. In addition calculations would be complicated since omitting one of the 10 extended family members with whom one lives may have a different meaning and significance to omitting the only family member with whom one lives.

Results are presented as the actual number of figures missing on various drawings, rather than as sum totals, in an attempt to make the depiction of these results more accurate. (For instance the categories of "Father", "Mother" and "Self" could only score 1 each time, but, looking at, for example, extended family, one can see that one subject

omitted 9 of her extended family members, another 3, while yet another subject omitted 4 of her family members).

**Table 4.7      Family member omitted from KFD - Experimental versus control group**

<b>Family member absent</b>	<b>Experimental Group</b>	<b>Control Group</b>
Father	1,1	1,1,1
Mother	1	0
Self	1,1,1,1,1,1	1
Sister	1,1	2,1
Brother	1,2	3
Extended family	9,3,4	0
<b>TOTAL</b>	<b>30</b>	<b>10</b>

Since there can only be one “self” per household, and since the self was omitted on 6 occasions for the experimental group and only once for the control group, a Fisher’s Exact Test was performed for this instance. There was a significant difference between the experimental group and the control group in the extent to which the self was omitted, Fishers Exact Test = 4,76,  $p < .05$ .

#### **4.2.2.2      Further analysis - Exploratory indicator 58 - Additional figures**

There was no category or indicator in Tharinger and Stark’s (1990) system catering specifically for the depiction of figures who do not form part of the subject’s household, (determined by the demographic information provided by the subjects’ caregiver(s)). In Reynolds’ (1978) system it is collapsed with *Indicator 27 - Number of household members absent*. It was therefore decided in the second scoring of the present research to include this as an additional, exploratory indicator. Again, since such small frequencies were involved, and the calculation of statistics would have been extremely complex, only observed frequencies are tabulated, as above (table 4.7). (The category “Other (Unclassified)” includes individuals who do not live with the subject and are not family members of the subject, for example friends).

Table 4.8 Additional figures - Experimental versus control group

Additional Figures	Experimental Group	Control Group
Father	1,1	1
Mother	1	0
Sister	0	1,1
Brother	2	1
Extended family	1,1,1	0
Other (Unclassified)	1,2,5,1,4,1	1,1,2,3
<b>TOTAL</b>	<b>22</b>	<b>11</b>

The most frequent additional figures for both groups were in the "Other (Unclassified)" category.

A further interesting factor, not mentioned in other research, involves the repeating of one figure, (i.e. drawing a specific person more than once in the KFD). It was established that, in the experimental group, the mother figure was repeated on two occasions, as was the sister figure. In two cases it was unknown who the repeated figures were. In the control group the self was repeated on two occasions.

### 4.3 Reliability of the instrument

The reliability of each indicator as well as the EI's combined and AI's combined were calculated to evaluate the degree to which each indicator and the EI's and AI's as two separate groups is/are reliable. Good reliability may suggest satisfactory operationalisation of the indicators comprising each the EI's and the AI's respectively. The statistics obtained for both the EI's and the AI's suggested relatively low reliability. (Note the additional exploratory item, *Indicator 58 - Number of additional figures*, was included, for this purpose, with the EI's).

EI's Alpha=.5 (N=28)

AI's Alpha=.46 (N=28)

The highest corrected item-total correlation obtained, ( $r=.5113$ ) was for *Indicator 35 - Bizarre figures*. Although the reliabilities were calculated on all 28 subjects, in the interest of a large sample size, this would generally be seen to suggest that a child's drawing of a figure considered to be "bizarre" would be more suggestive than any other indicator of sexual abuse. However, closer perusal of the data reveals that this



indicator was only scored once by each scorer, for the same drawing. This suggests that this may not be as good a discriminator between the KFD's of the control and experimental group as the statistics suggest.

Certain indicators showed extremely low contributions to the overall reliability, some even showing negative correlation with the scale total. This suggests that they may not be as indicative of family dysfunction or emotional difficulties in the child as they may have been proposed to be. The majority of these negatively correlated indicators were EI's. These indicators include:

**Table 4.9      Indicators showing poor agreement with the scale total**

<b>EI's</b>	<b>Corrected item-total correlation</b>
4 Relative height of child (big)	-.37
6 Fields of force (balls)	-.16
8 Fields of force (appliances)	-.01
12 Arm extensions of any figure	-.19
18 Compartmentalism of figures	-.08
23 Edged placement of figures	-.17
30 Line quality - heavy	-.15
32 Asymmetric drawing	-.11
<b>AI's</b>	<b>Corrected item-total correlation</b>
51 Omitted hands	-.19

One must note that several of these also obtained low levels of interrater reliability, suggesting that they may be difficult to detect or poorly operationalised, hence that scoring them is a subjective process.

The abovementioned items may be interpreted as possibly being suggestive of positive characteristics or factors of resilience in the subject and/or her family. If one looks at the proposed meaning of these abovementioned indicators, framed positively, the following possible meanings (Reynolds, 1978) would emerge...

*It may be beneficial for the child to see herself as important in the family, (Indicator 4) and to exhibit some competition with her siblings or other family members, (Indicator 6). She may desire affection from others in the family, (suggesting that she, herself, is affectionate and that she sees her family positively, as a possible source of affection -*

Indicator 8). Keeping family boundaries firmly in place may also be positive, as well as being able to separate oneself from negative influences within the family - Indicator 18. Drawing darkly may be suggestive of self-confidence or assertiveness - Indicator 30. It may also be positive for a subject not to be overly perfectionistic or compulsive, (which is contended to be suggested by symmetric drawings - Indicator 32). Omitted hands (Indicator 51) may suggest that the child does not have inappropriately great responsibility for dealing with the world outside of her family.

Other indicators showed zero item-total correlation. These were:

**Table 4.10 Indicators showing zero item-total correlation**

<b>EI's</b>	<b>AI's</b>
7 Fields of force (fires)	39 Sexual characteristics on figures – breasts
9 Fields of force (shading)	48 Hair long and unshaded
14 Position of any figure with respect to safety	50 Sexual contact between figures
19 Folding compartmentalism	52 Legs pressed together
20 Underlining of individual figures	53 Head only
21 Lining at bottom of page	55 Emphasis on circles
22 Lining at top of page	57 Clown images
31 Line quality - unsteady	

These indicators coincide almost perfectly with those mentioned in section 4.1.2.1 above as not having been scored at all by one or both scorer(s). It is obvious, therefore that these would not correlate with the total score given to a particular subject.

That the indicators do not form a homogenous set of items, and result in a number of reliabilities which tend to be low, suggests that the actual constructs of each the EI's and the AI's may be unsatisfactory. That is to say they may lack clear definition and/or it may be inappropriate to group the respective indicators together as an ostensibly homogeneous set of either EI's or AI's. This suggests that much work still needs to be done on scale development, selection of indicators to include, devising of new indicators, etc.

#### 4.4 Discriminant function analysis

The predictive ability of the EI's and AI's as totals was expected to be low due to the low levels of reliability calculated for the various indicators, (that is, the agreement of individual indicators scored with the scale total). This, in turn, was affected by the small number of significant differences found between individual indicators scored for the control versus experimental groups, as well as the non-significant difference in the total number of indicators scored between the control and experimental groups and the total number of AI's and EI's scored between the two groups. The usefulness of this measure was thrown into even more question by the small sample sizes and hence the low frequency of scores for the large number of indicators. In spite of this, it was still decided to do a Discriminant function analysis using the total number of EI's and AI's separately as predictors so as to evaluate the ability of each aggregate set of indicators to discriminate between the control and experimental groups.

The EI's and AI's in combination could not significantly discriminate between the control and experimental groups. The univariate tests suggested that the EI's were marginally more effective predictors than the AI's. However they, too, were not significant discriminators of the control and experimental groups.

EI's were suggested to be slightly better predictors of sexual abuse than were the AI's, (almost surprisingly). Wilks' Lambda (U-statistic) suggests the following:

EI's:  $U=.98$  ( $f=.53$ ,  $p=.47$ )

AI's:  $U=.99$  ( $f=.16$ ,  $p=.69$ )

A total of 57.1% of the experimental group and 64.3% of the control group were correctly classified, (giving an average of 60.71%).

This suggests that a non-significantly higher overall number of both EI's and AI's are evident in Zulu-speaking girls who have been sexually abused, as opposed to the general, non-referred population of Zulu speaking girls. In addition it may suggest that the human figure drawing indicators suggestive of sexual abuse as identified in the American literature may not be as applicable in a Zulu sample OR that there were a significant number of girls in the control group who had actually been abused, but not referred, thus decreasing the difference between the two groups.

#### **4.5 Comparison of Tharinger and Stark's (1990) control group with present control group**

Although the appropriate comparisons were statistically calculated, both in terms of the individual indicators scored and the total number of indicators scored, it was decided not to report these results. This decision was taken after a consideration of the difference between the composition of the two samples, (country of origin, race, sex, age, etc.), the entry criteria for the two samples and in view of the fact that the present writer was unable to obtain any further information from Tharinger, as regards the operationalisation of indicators used in their research.

Any comparison made would therefore not have been fair to either sample of children, and would not have constituted responsible and legitimate research practice.

#### **4.6 Summary of results**

##### **Comparison between scorers**

Scorer R scored significantly more indicators per drawing than scorer Q ( $z=-3.39$ ,  $p=.0007$ ) however there was significant agreement or interrater reliability ( $r=.7809$ ,  $p=.001$ ).

Of the 57 indicators used in the present scoring system, the scorers reached 100% agreement on 5 of the indicators, (scoring them for the same drawings each time). Another 9 indicators also achieved 100% agreement by not being scored at all by either scorer. Of the remaining 43 indicators, 6 achieved a low level of agreement between scorers, ( $Kappa \leq .4$ ).

##### **Comparison between control and experimental groups**

For the EI's and the AI's separately as well as the sum total of the EI's and AI's combined, neither scorer scored significantly differently between the control and experimental groups:

Scorer Q EI's  $U=84$ ,  $p=.51$ ; AI's  $U=94.5$ ,  $p=.87$ ; Total EI's + AI's  $U=91.5$ ,  $p=.76$ ; Scorer R EI's  $U=82$ ,  $p=.46$ ; AI's  $U=86.5$ ,  $p=.59$ ; Total EI's + AI's  $U=77$ ,  $p=.33$ .

There was a significant positive correlation between the mean number of EI's and AI's scored ( $N=28$ ;  $r=.56$ ,  $p\leq.001$ ).

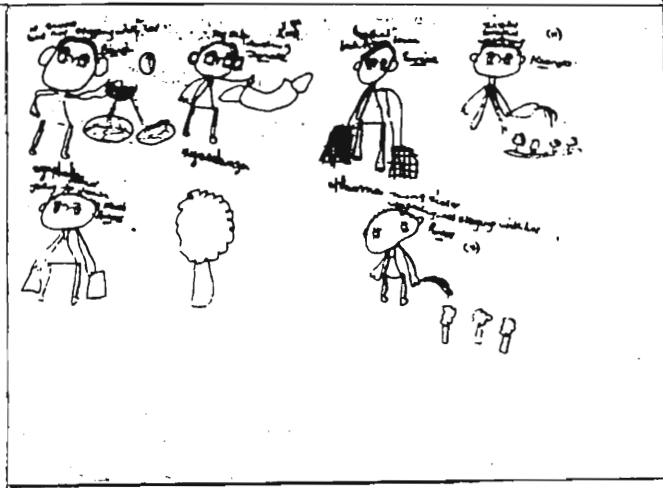
Analysis of individual indicators showed that scorer R scored a significant difference between the control and experimental groups on three indicators, while there were no significant differences found for scorer Q. A further 3 indicators for scorer R and 2 indicators for scorer Q showed complete agreement between the control and experimental groups, hence having no discriminative ability (Fishers Exact = 1.00). (One of these indicators was common to both scorers).

Further analysis of Indicator 27 - *Number of household members absent* showed that the self was omitted significantly more frequently in the experimental group than in the control group (Fishers Exact = 4.75,  $p<.05$ ).

The EI's and AI's separately both suggested poor reliability of the instrument (EI's Alpha=.5,  $N=28$  and AI's Alpha=.46,  $N=28$ ). Certain of the indicators showing low reliability were also found to have low interrater reliability, suggesting that they may be difficult to detect or inadequately operationalised. The low reliabilites found were proposed to be suggestive of the need for further research on the development of the scoring system.

A discriminant function analysis showed that the EI's were slightly (although not significantly) better predictors of sexual abuse than were the AI's, (EI's  $U=.98$  ( $f=.53$ ,  $p=.47$ ); AI's  $Q=.99$  ( $f=.16$ ,  $p=.69$ )).

One can therefore conclude that although interrater reliability was acceptable, the present scoring system seems unable to adequately distinguish between the control and experimental groups. Indicators from both the EI's and the AI's were shown to have low reliability, some indicators even correlating negatively with the total score obtained.

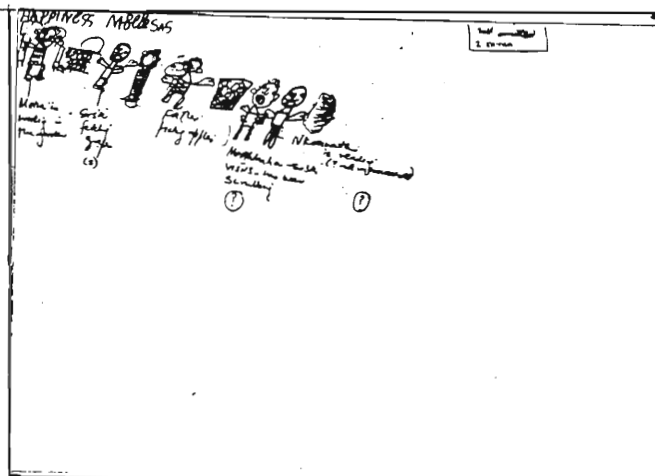


KFD 17

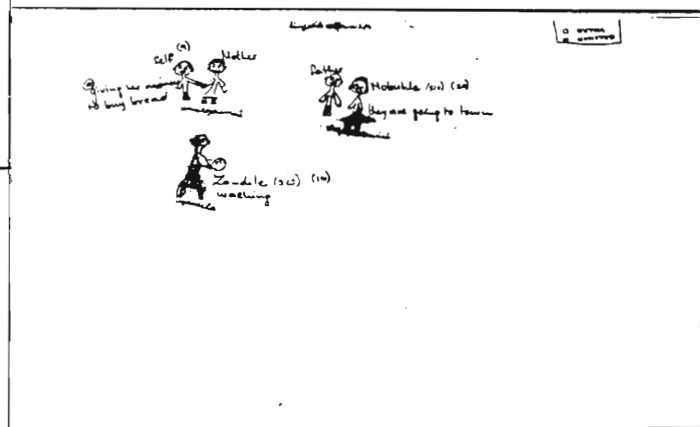


KFD 18

## Discussion of results



KFD 19



KFD 20

## Discussion of results

The following discussion can be seen to fall roughly into two parts. The first constitutes a discussion of the statistical results, (chapter 4) in the empirical/positivist tradition. The second consists of a descriptive exploration and commentary on the KFD's comprising the present research.

**Quantitative results:** Factors which, according to the statistics, are robust and which may therefore be argued to be useful in differentiating between sexually and non-sexually abused children, as well as indicators which, according to the statistics, have little suggestive power, will be highlighted. The reliability of the various indicators will be cited as well as the discriminative power, separately, of the total number of EI's and the total number of AI's scored. The implications of the obtained results for clinical practice will be hypothesised throughout.

**Descriptive account:** A descriptive account of the drawings will be undertaken, highlighting certain aspects of the KFD's obtained which are not catered for by either the EI's or the AI's, and which may therefore be unique to South African populations, or perhaps have not been deemed to be important by the scale developers or researchers whose work contributed to the scoring system used.

In the following chapter, suggestions as to issues which should be considered when using and interpreting KFD's with South African populations will be outlined, including consideration of who, in the envisaged reconstructed health care system, would be most suitable to administer and interpret KFD's.

### 5.1 Discussion of results

It is necessary, as a starting point, to once again highlight that the scoring system used in the present research was constructed at a particular time, from a particular theoretical paradigm.

Hoffman (1995) presents a snippet of wisdom, of relevance in this regard. She notes that a blind person walking outside who doesn't walk into a tree cannot say whether he is in a wood or a field, all he can conclude is that he has not walked into a tree. Similarly the KFD scoring systems can only indicate whether the scorer observed the indicators constituting that scoring system. Since these scoring systems are not constructed to give a holistic view of personality or describe a "healthy" family system or personality (if these actually exist), they cannot do so. Since they are designed to purportedly detect individual or family difficulties, presence of these within the child or his/her family should, in theory at least, be detected. Is it any wonder, then, that the evaluation of family life and the individual's place in it, that such scoring systems engender are essentially negative?

One intriguing question that has long plagued the researcher is "What would a 'healthy' KFD look like?" (again, if a healthy personality could be said to exist in the first place).

However, the present research was not intended to explore the validity of the indicators suggested, but rather, in part, to explore their reliability and their discriminative abilities in terms of differentiating sexually abused versus non-referred Zulu-speaking girls between 7 and 11 years of age, (the latter may include girls who have been sexually abused but not referred). Exploration of the validity of these indicators is recommended as an area for future research.

Note too that the moment one begins to hypothesise about possible reasons for any statistical result given, one enters the realm of conjecture which arises from the theoretical perspectives from which one operates.

### **5.1.1 Interrater reliability**

That the scores of the two scorers in the second scoring of data were significantly correlated, ( $r=.78$ ,  $p \leq .001$ ) is important. This suggests that the scoring system as a whole has good interrater reliability.

However, it is also notable that the interrater reliability of first scoring suggested non-significant results. One could hypothesize as to reasons for these non-significant results:



- It is of interest that the second set of scorers, trained in research psychology, at the same university, obtained a significant level of interrater agreement while the first scorers, trained in the clinical application of psychology, and at different universities, obtained non-significant results. This leads one to question whether the scoring (not to mention the interpretation) of KFD's depends partly on the purpose for which they are being scored as well as on the training which the scorers have undergone. The significance of different training may play a role, for instance, in the extent to which the more subjective indicators of the KFD's are scored by the respective scorers. For instance *Indicator 56 - Phallic symbols* or *Indicator 54 - Circular mouths* may be particularly influenced by the extent to which one has been trained in the psychoanalytic or psychodynamic tradition. In addition, the first pair of scorers had different levels of experience with the scoring and interpretation of KFD's and received supervision on their scoring and interpretation (of the KFD's of clients at the institution at which they worked) from different supervisors.
- It is possible that there would have been greater interrater reliability in the first scoring were the scorers given financial incentive. (This was, in fact, offered to them, but they declined). Had they been paid, they may have set aside a specific period in which to score the drawings, rather than doing them when they had time over a period of three weeks. (The second pair of scorers was paid and they completed the scoring over a period of three days). Of course, it is also possible that the magnitude of drawings scored by the first versus the second scorers may have resulted in the first scorers becoming tired or bored with the process, and therefore becoming less thorough. (The first scorers each scored 38 drawings while the second scored 28 each).
- It may be that the briefing for the present research given to first pair of scorers was not adequate, or that not enough practice examples were done together so as to gain consensus as to the meaning of each indicator.
- The slight adjustments made in the operationalisation of indicators between the first and second scorings may have contributed to greater interrater agreement in the second scoring, (although since the changes were so minimal, it is strongly doubted that these changes could have accounted for the whole difference in interrater

reliability between the first and second scorings). See Appendix E for both versions of the operationalisation of the indicators.

The above hypotheses, however, suggest that the scoring system used is sensitive to external factors, one of these being that it appears to be dependent, to a large degree, on the scorer using it and therefore cannot be considered an “objective measure”.

In the second scoring, scorer R scored significantly more indicators than scorer Q, ( $z=3.39$ ,  $p=.0007$ ). This suggests that even though an acceptable degree of interrater reliability was obtained, there is the danger that certain users of the technique will consistently detect more “pathology” in drawings than other users of the same technique.

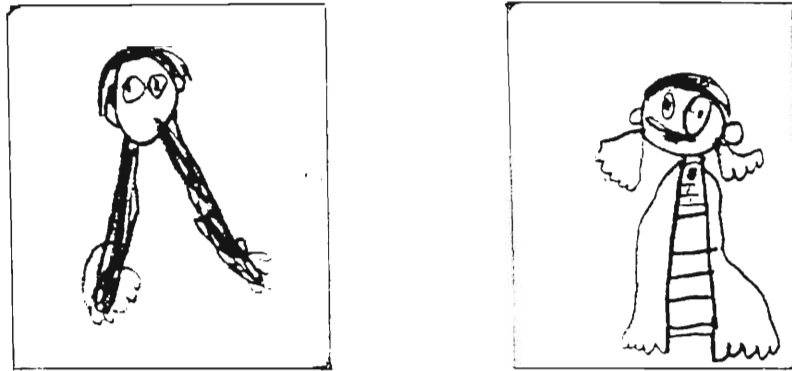
### 5.1.2 Indicators attaining low interrater reliability

That so few items attained complete agreement between scorers suggests that different scorers may obtain different scoring profiles for a particular KFD. This in turn implies that either scoring is a subjective process or that certain of the indicators were not adequately operationalised (that is, those for which there was a degree of misunderstanding between the two scorers as to what comprised a particular indicator). That the most reliable indicator was calculated to be *Indicator 35 - Bizarre figures* is misleading since it was only scored once by each scorer.

Misunderstanding as to what a particular indicator comprises appears to be likely in the case of *Indicator 4 - Relative height of child (big)*, *Indicator 23 - Edged placement of figures* and perhaps even *Indicator 13 - Description of drawings not same as drawing*. This is hypothesised since the definition of these indicators should make them relatively easy to identify and score. For instance *Indicator 23 - Edged placement of figures* was operationalised as “ALL figures are drawn along *two or more edges* of the paper”. (See Appendix E for operationalisation of all indicators).

The remaining three indicators attaining low interrater agreement contain unavoidably subjective judgments, hence perhaps rendering it easier to understand that they attained low interrater reliability. For instance how light a line would qualify for *Line quality - light (Indicator 20)*?

However this would not adequately explain why one of the subjective indicators, *Indicator 35 - Bizarre Images* attained a high level of agreement. It could be argued that this is such an infrequent indicator in drawings that on the rare occasions when it is observed, it is unmistakable. However, as stated above (section 4.3) examination of the actual frequency with which this indicator was scored reveals that both scorers scored it once only, for the same KFD.



**Fig 5.1 Figures classified as “Bizarre”**

### **5.1.3 Indicators attaining high levels of agreement**

Other indicators attaining high levels of agreement between the two scorers suggest that these may be adequately operationalised or easily identified, perhaps both. This could arguably include those indicators which were not scored at all. However the latter may be of interest to the researcher rather than to the user of the drawings since, if ridiculous indicators are defined, for instance “Family is drawn at the North Pole”, would it really constitute good operationalisation of the indicator if it was never observed and therefore could never be applied?

Instead, it is argued at present, the latter indicators may not be relevant in the evaluation of these two populations of subjects, or at least not to the scorers who participated in the second scoring of the drawings! There is, however the possibility that the children may simply be showing the emotions purported to be symbolised by those indicators in another way, (perhaps in psychoanalytic terms an instance of displaced displacement?)

#### 5.1.4 Total number of indicators scored - Control versus experimental group

According to the results obtained, neither scorer Q nor scorer R's scoring distinguished between the control and experimental groups, (total of EI's and AI's combined for scorer Q:  $U=91.5$ ,  $p=.76$  and scorer R:  $U=77$ ,  $p=.33$ ). This may be argued to be more understandable for the EI's (scorer Q:  $U=84$ ,  $p=.51$  and scorer R:  $U=82$ ,  $p=.46$ ) than the AI's (scorer Q:  $U=94.5$ ,  $p=.87$  and scorer R:  $U=86.5$ ,  $p=.59$ ) since the control group, by definition, simply excluded those girls with a known history of sexual abuse. It did not exclude, for instance, those highly anxious girls or girls who came from what may be classified as unstable homes. It seems unlikely that sexually abused girls would exhibit significantly more EI's (which cover a wide range of emotions and/or family dynamics) than any other children. It may be more fruitful, to look at individual indicators scored or, similar to Machover's initial contention (see section 2.3.1), as regards the drawing of a person, to look at patterns of indicators (1949, cited in Candotti, 1986). It was, however, determined that the EI's were slightly, (not significantly) better predictors of sexual abuse than the AI's (EI's:  $U=.98$  ( $f=.53$ ,  $p=.47$ ); AI's:  $U=.99$  ( $f=.16$ ,  $p=.69$ )). This suggests that the sexually abused children in the experimental group were more, (although not significantly more), likely to exhibit more indications of disturbance, family dysfunction or distress in their drawings than they were to depict symbols which earlier research has noted to be suggestive of sexual abuse.

In view of these results, it was decided to examine whether there were significant differences between the control and experimental groups in terms of the individual indicators scored. This will be commented upon below (section 5.1.6).

It may be surprising that there was no significant difference in total number of AI's scored between the control and experimental groups. Again, several possibilities may account for this - it may be that the control group contained a significant number of females with an undetected history of sexual abuse, which would then minimise the difference between the two groups. It may also be that, for the majority of the experimental group, since the sexual abuse did NOT occur (i) within the family and (ii) recently, (see table 3.1(f) & 3.2(b)) those characteristics suggested to occur frequently in the HFD's of sexually abused subjects from Western populations may not be as evident as would be expected in

the KFD's of Non-western population groups. Alternatively, the aforementioned characteristics may not be applicable to the South African populations in the research.

#### **5.1.5 Correlation between EI's and AI's**

It was noted (section 4.2.1) that there was a significant correlation between the mean number of EI's and the mean number of AI's scored, ( $N=28$ ,  $r=.56$ ,  $p\leq.001$ ). This may suggest that whatever it is that EI's are purported to indicate, are related to, or overlap significantly with, that which AI's purportedly suggest. Since no significant difference was found between the total scores given to control and experimental groups in the present research, this result could be applied to both non- and sexually abused children, suggesting that any children who exhibit more AI's would also be likely to exhibit more EI's, and vice versa.

#### **5.1.6 Significant differences between individual indicators – Control versus experimental groups**

The indicators which were not scored by either scorer have been dealt with above, (sections 4.1.2.1 and 5.1.3). However, another 8 indicators were scored by one scorer but not the other. Several of the latter do require some subjective evaluation, for instance *Indicators 14 and 30 (Position of any figure with respect to safety and Line quality - heavy respectively)*. It is however perplexing to note that Scorer R did not note any instances of underlining of any figures, whether individual figures (*Indicator 20 - Underlining of individual figures*) or, closely related to, and perhaps at risk for being confused with it, *Indicator 21 (Lining at the bottom of the page)*. She did not score any instances of *Indicator 22 - Lining at the top of the page* either. This may suggest that she did not attend to under- or "abovelining" or that scorer Q scored where there were not any instances of under- or "abovelining".

There were three indicators for which there was a significant difference in the scores scored for the control versus experimental groups, (with the experimental group being scored higher in all three cases). These were *Indicator 17 - Encapsulation*, *Indicator 28 - Figure(s) on back of page* and *Indicator 37 - Transparencies*. This suggests that these may be SUGGESTORS, (not detectors) of sexual abuse in children. Of note, none of these were AI's, and all three were obtained by scorer R.

However, this suggests that scorer Q did not note any significant differences in the KFD's of sexually abused and non-sexually abused girls, hence, one could propose, would not be able to visualise what a "typical" KFD of a sexually abused child is purported to look like. In addition, that the three KFD indicators which were calculated to have been scored significantly differently between the control and experimental groups are all EI's suggests that they are unlikely to be particular to the drawings of sexually abused children. Rather they may be also be scored more frequently in the KFD's of another clinical sample than they would for a control group.

In addition the exploratory item, *Indicator 58 - Number of additional figures* did not get scored significantly differently between the two groups (Section 4.2.2). However it is suggested that this indicator may be worth researching further since it was evident in the children's KFD's and since "additional figures" could potentially be any of the range of people in an individual's family, (the relationship of each additional figure to the child may have different implications for the interpretation of drawings).

#### **5.1.7 Number of family members omitted from, and additional to, the KFD**

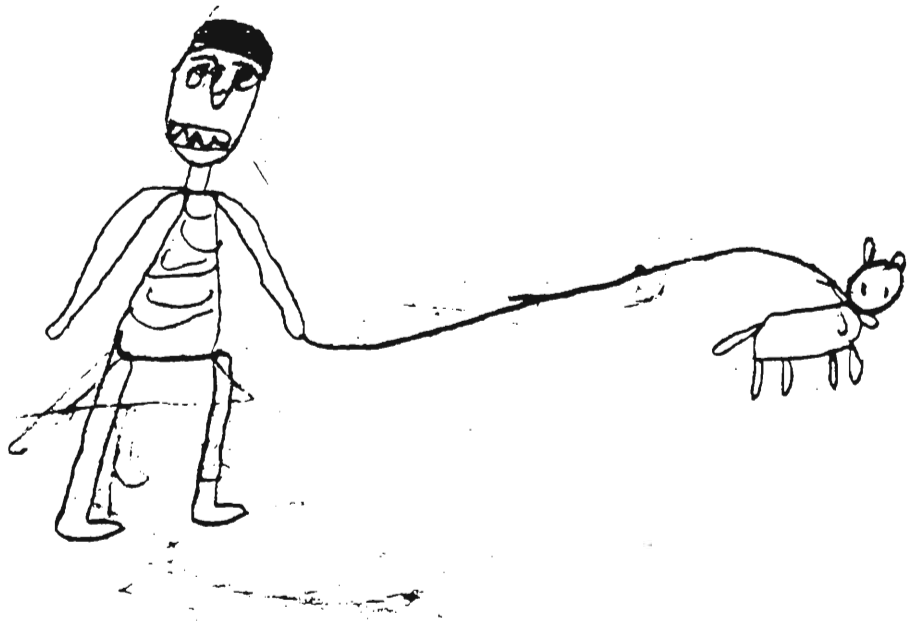
Although, as has been explained, (section 4.2.2.1), the present writer felt it was unwise to attempt to calculate levels of significance for control versus experimental groups on each category of household member missing, some comment is called for.

Particularly notable is the number of children in the experimental group who omitted extended family members who lived in the same household as they did. It is difficult, however, to quantify the significance of this since it would, in the present researcher's view, require that each child's family size in relation to the number of members omitted be attended to individually. (It may be more significant to omit the one family member one lives with than to omit one of the 7 cousins with whom one lives).

It was, however, possible to statistically calculate the significance of the difference between the scores scored for the control versus the experimental groups in terms of number of instances in which the self was omitted, (since there is obviously only one self per household). It was calculated that the self was significantly more frequently omitted from the KFD's of the experimental group than the control group (Fishers Exact = 4.76,

$p < .05$ ). According to Reynolds' (1978) scoring system, this would suggest greater feelings of rejection by self or others, greater feelings of isolation and internal conflict and possibly a lower self-esteem or even self-dislike amongst the experimental group subjects than the control group subjects.

As with the number of figures omitted, it was not deemed suitable to undertake statistical analysis of the exploratory indicator, *Indicator 58 - Number of additional figures*. It is worth noting that the most frequent additions to both the control and experimental groups was that of non-family members, ("other"). According to Reynolds (1978, p.491), additional figures suggest "disruptive influences protruding onto the family or a closeness within the extended family". This may according to Reynolds (1978) suggest that the boundaries around the family system are not firmly drawn or that nuclear or even extended families are not given precedence over contact with non-family members. One of the subject's drawings included her deceased grandfather. Although in Western tradition the latter may be viewed as pathological, such a judgment ignores the role of ancestral spirits in African cultures.



**Fig 5.2 Deceased grandfather**

A feature which may simply not have been deemed important in earlier scoring systems or which may be unique to South African children's drawings, was the number of repetitions of a specific figure, (that is the figure being drawn more than once in a particular KFD). This feature was observed in both the control and experimental groups (section 4.2.2.2). It is suggested that this characteristic be further researched.

### **5.1.8 Reliability of the scoring system**

The present researcher contends that the reliabilities tending to be low may arise from a set of items which possibly do not form a homogeneous group. This suggests that the actual constructs of each the EI's and the AI's may be unsatisfactory. That is to say they may lack clear definition and/or it may be inappropriate to group the respective indicators together as an ostensibly homogeneous set of either EI's or AI's. This suggests that much work still needs to be done on scale development, selection of indicators to include, devising of new indicators, et cetera, if the scoring system is to be used at all in future.

It is also possible that certain of the indicators, (those with a negative item-total correlation), which are assumed to suggest negative traits or pathology actually could be interpreted positively and therefore have a positive effect on a child or family's functioning (see section 4.3).

### **5.1.9 Discriminant function analysis**

Reasons for the lack of confidence that could be placed in this technique for the present set of data were presented in section 4.4. In spite of this, the statistic was performed on the data and it was calculated that the two predictors identified, EI's and AI's were able to correctly classify, on average, 60.71% of the subjects based on their scoring profile.

These results would TENTATIVELY suggest that using EI's and AI's to distinguish between the two populations in the present research is not appropriate.

### **5.1.10 Summary of results**

The results above suggest that, using the present scoring system, there was a significant correlation between the total number of EI's and AI's scored for the control and experimental groups combined. For one scorer, there was a significant difference between the control and experimental groups for three of the EI's (as well as for the frequency of the self figure being omitted from the KFD). Certain of the indicators were not scored at all, and several were only scored by one scorer. It is also contended that neither scorer was well able to distinguish between the control and experimental groups, although a high level of interrater reliability was obtained. This strongly suggests that the



notion of which characteristics of KFD's are "typical" of sexually abused children is inaccurate, if not completely false.

These results therefore echo Tharinger and Stark's statement that although research findings on the KFD have suggested "satisfactory interrater reliabilities, they have not been successful at consistently differentiating the drawings of children with and without emotional problems" (1990, p.363). In addition, the validity of the individual indicators still needs to be researched.

## **5.2 Comment on empirical method**

### **5.2.1 Present writer's evaluation of the quantitative scoring system used**

The writer's first concern, referred to in the introduction, (Chapter 1), is the confidence placed in quantitative scoring systems and the consequent power with which drawings are imbued when used projectively. Aligned to this is her concern as to the construction of the scoring systems - they do not include any definition of signs or symbols of well-being, (both individual and familial), in the KFD. It may, arguably, be considered to be "normal" for each individual to feel, for instance, some anxiety or competitiveness within the family system, rendering detection of this, using, in part, the KFD, of little diagnostic significance.

In addition, one must consider the low interrater reliability obtained in the first scoring of the KFD's used in the present research. Bearing in mind that both scorers had obtained experience with the KFD while under supervision and had received training in the use of the KFD and other projective instruments, the present writer has begun to question the utility of giving lower level health workers specialist training in administering and scoring the KFD. She feels that the emphasis should perhaps shift away from the manner in which they are scored to the manner in which they are used in the child's best interests. (This would strongly suggest that projective drawings be increasingly viewed as a therapeutic technique rather than being viewed as a method of personality assessment, where frequently issues are identified in a psychological/emotional assessment, and are written up in a report, but not further dealt with or followed up on).

In view of the number of indicators which were not scored at all, and the low item-total correlation, the present writer has begun to question the utility of the relevant categories for the present South African populations, (although, admittedly, the sample sizes used in

the present research were so small). That is not to say that she believes these indicators should simply be discarded, but rather that they should be more widely researched with a range of populations, and with larger samples.

That more than one indicator is contended to suggest a particular emotion is also problematic in that it could result in the likelihood of detecting and interpreting those particular emotions being weighted. If children tend to use all or most of the possible indicators for a particular emotion, the total number of indicators scored may be inflated. This situation may potentially be relieved if the scoring system were to undergo revision, perhaps, for instance, to group together indicators which all suggest insecurity. To illustrate - one child may show feelings of insecurity by pencil erasures another by drawing arm extensions. However this situation would exacerbate another difficulty with the scoring system - perhaps conversely, since one indicator is argued to suggest more than one emotion, how does one determine which of the range of possible meanings for a particular indicator is applicable in a particular instance for the purposes of grouping indicators together?

Related to this is the question of whether there would be a difference in the way the child depicts, for instance their feelings of *anxiety towards* the assessment procedure versus their feelings of *anxiety towards* a family member, versus their perceiving the *family member* as anxious, versus their experiencing *pervasive feelings* of anxiety, not related particularly to his/her family. The scoring system makes no distinction and offers no guidelines in this regard.

The scoring system, too, is dated. One may question the frequency with which a child would draw, for instance, "fires". Inclusion of newer phenomena, for instance televisions, computers and cell phones may be more appropriate. One may also question the appropriateness of certain of the other indicators, not forming part of the EI's, but the AI's, for non-Western populations. For instance *Indicator 47 - Hair emphasised or excited* and *Indicator 48 - Hair long and unshaded*, the former due to greater likelihood of curly or afro-type hairstyles in African populations and the latter due to the relative infrequency of long hair amongst the African population. (The manner in which hair was depicted in the present research is referred to below, section 5.4).



**Fig 5.3 Ways of depicting hair**

As early as 1961, (see Lindzey, section 2.2) it was established that factors external to the drawing task influence results obtained. Quantitative scoring systems appear not to heed these factors. Consideration of these factors would complicate the interpretation of drawings. For instance, how would one determine a child's artistic ability? (See section 2.7).

Quantitative scoring systems also appear to be diametrically opposite to the initial formulations of psychoanalysis - which forms the conceptual basis of projective techniques and for many years was the only manner in which these techniques were understood. Psychoanalysis, for instance, contends there are no universal meanings to symbolism in dreams, but rather meanings should be sought through the client's associations with the symbols. "My procedure is not so convenient as the popular decoding method [for dreams] which translates any given piece of a dream's content by a fixed key. I, on the contrary, am prepared to find [that] the piece of content may conceal a different meaning when it occurs in various people or in various contexts." (Freud, 1900/1976, p.179).

Freud's approach appears to be not at all mirrored in the "diagnostic" use of KFD's. In addition, the diagnostic use of drawings allows no time for the child to "work through" issues. Similarly Machover (1949, cited in Candotti, 1986) proffered her scoring system as a means to generate HYPOTHESES, (and, by implication, that these should be further explored so as to be confirmed or disconfirmed). Furthermore she believed that these hypotheses should be based on patterns of signs, (not on the meaning ascribed to each

sign individually). In view of this, the use of KFD's in psychological or emotional assessments, where the drawings are decoded and a report written up after only obtaining superficial knowledge of the child and his/her family appears to be inappropriate since the "information" drawn from the KFD is then taken to be an analysis of personality, rather than a set of hypotheses to be explored further in conjunction with the child, (possibly through therapy).

With the above in mind, there are several areas in which, as the empirical results suggest, research could be fruitfully undertaken.

### **5.2.2 Potential areas for future research**

Firstly in view of the small subject sizes in the present research, it is suggested that further empirical research, based on larger sample sizes be undertaken, both with the populations in the present research and with other populations, (that is sexually abused and other clinical groups of both males and females, as well as children from different areas, cultures, etc.).

It is also recommended that further research be done on the KFD's of sexually abused children, looking at the effect of, for instance, regular sexual abuse versus a single abuse incident, the effect on the KFD of how long ago the sexual abuse was perpetrated, the influence of therapeutic intervention of the KFD, (perhaps by obtaining a "before" and "after" therapy KFD), the manner in which the perpetrator is depicted, if he is depicted, the effect on the KFD of intra- versus extra-household perpetrators, etc. As has been stated, (section 3.2.1), these were not controlled for due to the difficulties experienced in securing the experimental group.

Other statistical techniques could be used, potentially giving rise to different, yet valuable information - for instance doing a multiple regression to evaluate important factors which emerge from the data. Aligned with this is the suggestion, arising from the low reliability obtained for the instrument, that the constructs comprising the scale be examined and refined.

It is also suggested that the validity of the scoring systems be investigated, and that other means of scoring and evaluating children's drawings, such as the qualitative systems

used in Tharinger and Stark's (1990) and Rudenberg, *et al.*'s (1998) research be further investigated.

The present writer believes that qualitative analysis of a large sample of control group drawings would be useful to assist in gaining further information as to the content of South African children's drawings, not necessarily in order to construct yet another scoring system, but to alert professionals to the uniqueness of the drawings of South African children and the extreme caution with which standardised scoring systems based on Western populations should be used, if they are to be used at all.

Research on the utility of the KFD in a therapeutic setting may yield valuable information, particularly perhaps if researched qualitatively, since this is how they may tend to be used in the therapy situation.

Finally it is recommended that each professional experiment with his/her use of the KFD in practice, attempting to look at the context from which the text was drawn or out of which the drawer of the text came, attempting to use it therapeutically or as a means of initiating interaction with the child, and co-constructing the meaning of the drawing with the child.

### **5.2.3 Limitations of the present study from an empirical position**

Firstly, and perhaps most glaringly for those well versed in the positivist tradition, the present research only had 14 control and 14 experimental group subjects. This could be seen to have weakened the power of the statistical analysis and the resultant propositions. Conversely, it is the smaller sample size that facilitated a qualitative exploration of the drawings.

The entry criteria for the control group were not as stringent as would have been optimal. They did not disallow the possibility of undetected sexual abuse having been experienced by control group subjects. However due to the difficulty experienced in obtaining subjects for the experimental group and due to research constraints, in terms of resources, subject pools, etc. it was decided that these would suffice. (See section 3.2.1 for other possible criticisms of the samples - both the experimental group and the control group).

The manner in which the KFD's were obtained and evaluated in the present research did not replicate the manner in which they are collected and used in practice - this inevitably influenced the final art creation. This was compounded by the fact that different individuals collected the control versus experimental groups' KFD's, that the KFD's of the two groups were collected under very different circumstances, in very different contexts, and that the control group's KFD's were collected in small groups while those of the experimental group were collected on an individual basis.

That the researcher did not herself collect the KFD's is also problematic since she had no way of ensuring that research procedure was adhered to at all times.



### **5.3 Explanatory note**

The present writer's motivation for undertaking an empirical investigation was to attempt to replicate, in part, one manner in which standard scoring systems may be used in practice, particularly, it is felt, by individuals with little clinical experience in the use of KFD's. In view of the results obtained in the present research, similar results obtained by other quantitative studies of the KFD, (Tharinger & Stark, 1990), and the writer's impression of the statistics as not "giving the whole picture", she began to look to other approaches which may complement the quantitative scoring methods and assist in giving a more complete view of the drawings. She also began to question whether the scoring systems presently in use are asking appropriate questions of, or attempting to obtain the suitable information from, drawings.



An unstructured, informal, descriptive look was taken at the KFD's obtained. However, this perusal is inescapably subjective - the manner in which the writer examined the drawings, her expectations and purpose before starting to look at the drawings from a less structured perspective, et cetera, resulted in her considering certain of the features to be more notable or important than other features. Each different individual, with a different

objective in mind, would be likely to notice and attach significance to different characteristics or features of each picture.

For instance the writer did not attend to the more technical details of the drawings, such as position of figures, or to the aesthetic qualities of the drawings, but rather to more frequent characteristics of figures and activities which the figures were depicted as engaging in.

#### **5.4 Descriptive appraisal of the KFD's**

This is by no means a claim to have adequately engaged in a qualitative analysis of the drawings, since this is beyond the scope of the present research. The intention was rather to note and subsequently comment on those features of the KFD which were notable for the present writer in her examination of the KFD's.

In perusing the 28 KFD's on which the present research was based, the writer was struck by the extent to which the drawings could be read as a commentary on contemporary life in South Africa. The drawings, in her perception, depicted Zulu South African culture and life in transition. Drawings in both the control and experimental groups ranged from children and parents fetching water in buckets on their heads or in their hands, and working in the garden growing fresh produce, to drawings depicting family members watching television, going to buy bread, fixing or driving cars and going shopping.

Other features of the KFD's were noted, which, as with the quantitative scoring systems, serve to emphasise certain aspects of certain drawings, (hence de-emphasising others,) and by no means capture the richness of individual KFD's. These selected features include:

- Children and adults engaged in housework, (for instance washing floors or sweeping) as well as working in the garden (e.g. KFD 4, 12, 15, 17 and 19);
- Parents drinking tea (e.g. 5, 13, 16);
- Cars and even a taxi (KFD 21, 24);
- A number and range of animals, wild and tame, (KFD 1, 23, 26);
- A large number of children depicted playing or watching ball games - the writer feels that since soccer is such a popular sport amongst Black South African children, (more so than games such as, obviously, computer games or even hide-and-seek,) the

predominant interpretation of the ball as a signifier of rivalry should be made very cautiously (KFD 9, 10, 28);

- A number of figures drawn sleeping - be it in beds or on grass, et cetera (KFD 16, 25, 28);
- A number of houses (KFD 18, 21);
- Several figures drawn in an enclosed space and in some cases these were shaded over (KFD 16, 25);
- Only one instance where two of the figures were shaded so as to appear "black" (KFD 25);
- Hair depicted in various ways - some subjects shaded the hair drawn, others simply outlined the hair, leaving the rest white (see Fig 5.3);
- Noses and hands frequently depicted in what may traditionally have been classified as a phallic manner. However this may be one of the cultural idiosyncrasies referred to by Cox (1993) (see section 2.7.1) and therefore, arguably, not of much significance for interpretation (Fig 5.4 below));
- One example of a "bird's eye view" of several of the figures drawn (KFD 22);
- Two instances in which patterns were drawn scattered all over the page (KFD 8; 10);
- The majority of figures depicted with what may be classified as big ears;
- Two of the experimental group's KFD's were drawn on a number of pages (KFD 9, 10).

As has been stated as one of the flaws in the present research, since the researcher was unable to collect all drawings personally, she could not control the extent to which all drawings were collected according to the standardised instructions and procedures which the collectors of the drawings were briefed on prior to undertaking the research. Using more than one page for the drawing of a KFD is an inconsistency which occurred with the collection of the drawings, and the form which the KFD's would have taken, were the subjects not given additional paper, can only be hypothesised.





**Fig 5.4 Phallic symbols?**

It was also notable for the writer when initially looking at all the drawings, both those used only in the present (second) scoring and those used in the initial scoring, that there were a number of instances in which girls were drawn skipping and instances in which children were drawn playing hop-scotch.

During the descriptive appraisal of the KFD's obtained, it became increasingly apparent to the researcher that the present or any other scoring system is not quintessential to the KFD. Rather, each system which has been constructed, even though purportedly based on research, is inescapably based on the creator of the system's own perceptions, his/her motive for constructing that scoring system and the subjects on which the research was based. Hence, constructing a scoring system which purportedly "detects" signs of individual or family "pathology", results in the identification of such indicators, (perhaps through research), while ignoring the occurrence of other features of the drawing. (Refer again to Hoffman's (1995) illustration of a blind person taking a walk outside in section 5.1). In this way, the developer's initial hunch about the utility of KFD's for identifying those "signs of pathology" would be confirmed. It is no surprise then that even the control groups in the present and other studies have been scored as depicting EI's or other

indicators, (even in Koppitz's initial research). (This appears to almost be an instance of a double bind situation since lack of any EI's, on the other hand, may be seen by psychoanalytically inclined individuals to be an instance of denial!).

*(Writer's note: the difference between intellectual and emotional/psychological assessment is important here since, for instance, in calculating an intellectual quotient, the final score obtained is explicitly based on the correct or incorrect responses to a particular set of questions or task requirements. The score is then acknowledged to be a human construction. In the case of a KFD, however, a scoring system is imposed ad hoc on the child's personal, unique creation, which he/she has made in response to a particular request. This highlights the issue of whether it is justifiable to apply psychometric notions to what are essentially personal productions).*

By using a standard scoring system, certain features of the drawings, as defined by the scoring system, are emphasised and meanings attributed to these selected features. Other aspects are thus de-emphasised and are, by implication, not as important.

The present writer however believes that the composition of quantitative scoring systems are simply one manifestation of a greater trend in the field of psychology. The emphasis is by and large placed on "unhealthy" personalities, with little consideration as to what constitutes a "healthy" personality, (if such a construct could even be said to exist in the first place), and more specifically, what would constitute a "non-pathological" KFD. This may be a void in the field, or perhaps simply a gap in the present writer's own understanding.

In addition, was one not to look at the KFD's holistically or qualitatively, but rather to simply impose scoring system onto these personal artistic productions, the uniqueness and richness of drawings would be largely disregarded, and therefore much of the meaning of the drawing would be lost. For instance, the significance, if any, of the image in one KFD of "granny watching a dolphin" or of "sister crying" in another KFD would not be explored or even acknowledged since these items are not defined in the scoring system. This situation is exacerbated when, as in the present research, each individual drawing is not even attended to, (albeit using a standardised scoring system). Instead,

drawings are lumped together so as to identify trends and significant differences between different “categories” of people.



**Fig 5.5 Sister crying and granny watching dolphin**

Investigation of which household members were omitted from the KFD and which figures drawn were additional begs a qualitative exploration, as does the significance of “repeated figures”), (as outlined in section 5.1.7). Such examination would facilitate exploration of the family constellation of the child, and hence generate hypotheses as to the significance to the child of the figure(s) omitted, added or repeated.

## 5.5 Conclusion

Since the statistical results suggests that the standardised, quantitative scoring system could not discriminate between control and experimental groups it is implied that the categories imposed on the KFD's, (that is the indicators used,) may not be appropriate to distinguish between the control and experimental groups used in the present research, that there is no difference between the KFD's of two groups, or that each drawing constitutes such a unique production that it eludes quantification according to a predetermined scoring system. This would suggest that it may be more fruitful to look at each KFD more holistically, (hence qualitatively), not simply attending to the scoring systems which could be used, but rather using the scoring system to supplement a more holistic/qualitative approach. Again using the KFD *with* the child as a means to co-construct the meaning of the KFD *to* the child is suggested. (The clinician's understanding of personality and the motivations, issues, etc. of which the child is not

aware or is unwilling to admit could then be used to supplement and to better understand the child and his/her world.) Again, this points to possible use of the KFD as a therapeutic, rather than a diagnostic instrument.



## Conclusion and suggestions for a way forward

“I should like to utter an express warning against overestimating the importance of symbols...against restricting the work of translating dreams merely to translating symbols and against abandoning the technique of making use of the dreamer’s associations. The two techniques must be complementary to each other...but...[I attribute] a decisive significance to the comments made by the dreamer, while the translation of symbols...is also at our disposal as an auxiliary method” (Reference provided below).

Although the above quotation seems to contradict the manner in which projective drawing techniques are frequently used at present, it was, in fact, penned by Freud, in connection with “dream work” (Freud, 1900/1976, p.477). (See also section 5.2.1). This suggests that the issues raised by the present research are not completely new. Rather, the use of projective drawings appears to the present writer to have come full circle, returning to the point where quantification is seen as inadequate and incomplete. In preference, the client’s creative productions are used qualitatively and in conjunction with the client’s own set of meanings attributed to the creative product. By implication, this would appear to be best suited to occur in a therapeutic situation. That is not to say that the present researcher is calling for a return to psychoanalytic understandings or conceptualisations of drawings, but rather that she is calling for a return to grappling with the meaning of each unique drawing, in conjunction with each client.

In an attempt to understand the complexity of drawings, the range of factors which could influence each drawing and the range of meanings which could be attributed to each drawing, (based on the theoretical perspectives which could be assumed *vis-à-vis* drawings), the researcher sought a perspective which would be flexible enough to contain the multifaceted nature of drawings, yet have a theoretical undergirding. The perspective which assisted her most in this regard will be used to comment on the present research below.

## **6.1 The quantitative scoring system**

The quantitative scoring system was selected as a means to compare the KFD's of sexually abused versus non-referred females since this system is frequently used in practice, (although not necessarily to the exclusion of other more qualitative methods). It was contended that such systems may be seen to be relatively straightforward and hence suitable for lower level health care workers to administer. It was deemed important to evaluate this belief.

However the scoring system appeared to be unable to account for much of the richness and potential meaning of KFD's. It did not fare well when subjected to statistical analysis, (below). In light of this, it was attempted to describe drawings in terms of features which occurred relatively frequently in the KFD's which were not accounted for in the quantitative scoring system. While this did allow for an increased knowledge of that depicted in the KFD's, it was still felt that this was inadequate. It was therefore contended that KFD's should be seen as a therapeutic tool rather than an assessment instrument, and that quantitative methods be seen as a supplement to qualitative methods, and those in which the meanings of the drawing to the drawer are examined.

## **6.2 The statistical results**

### **6.2.1 Summary of statistical results**

The statistical results suggested that an acceptable level of interrater reliability was obtained. However scorer R scored significantly more indicators per drawing than scorer Q, suggesting that she detected more "pathology" than scorer Q in the KFD's scored.

Five of the 57 indicators obtained 100% agreement between the two scorers, and a further 9 indicators were not scored at all by either scorer, (the latter causing the researcher to question their applicability for the populations which were researched, bearing in mind, however, the small sample sizes used).

Reasons were hypothesised for the low level of interrater agreement obtained for 6 of the indicators.

The scoring system as a whole, as well as the EI's and AI's separately could not distinguish between the control and experimental groups. Only 3 indicators for scorer R were scored significantly differently between the control and experimental groups. None of scorer Q's scores differed significantly between the two groups of subjects. A further 4 indicators, (3 for scorer R and 2 for scorer Q, with 1 indicator being common to the two scorers), showed no difference in frequency between the control and experimental groups. Aside from the limitations of the present research arising from the selection of subjects, (see section 3.2.1), this strongly suggests that the scoring system was unable to distinguish between the control and experimental groups, and that there is not a "typical" KFD, characteristic of sexually abused children.

The system was found to have low reliability, with certain of the indicators being negatively correlated with the total score obtained. It was suggested that these indicators may be *suggestors of resilience* rather than of pathology. The low reliabilities obtained also indicated the need for further research on the composition of the scoring system and its constructs. However there was a significant correlation between the total number of AI's and the total number of EI's scored. This suggests that whatever it is the one "measures" is also measured by, or related to, what the other "measures". Again, there is need for further research in this area.

### **6.2.2 Evaluation of statistical results and empirical method**

There appeared to be a poor fit between the nature of the data used in the research, (that is unique artistic creations of children), and the methods used to evaluate this data, as well as the methods used to appraise the quantitative evaluation of the data/drawings. Both the nature of the data/drawings and the questions which were asked of it leave one with a strong sense of the inadequacy of the empirical method for gaining an increased understanding of the KFD technique. However viewing the data empirically was beneficial in the following areas.

It allowed for an evaluation of one quantitative scoring system presently used in the evaluation of KFD's. This included an evaluation on the suitability of the scoring system, (in its present form, and particularly since it was developed on Western populations), for a South African population, that of referred and non-referred Zulu



speaking females. In addition the empirical approach also allowed for the investigation of the suitability of lower level health care workers for future administration of the KFD. However, the empirical stance, it was felt, could not adequately capture the richness and uniqueness of children's drawings, neither did it facilitate an increased understanding of these drawings. Furthermore, this stance concealed the subjective nature of the scoring process - the scores assigned to drawings appear to be objective measures which can then be subjected to statistical analysis.

Subjecting groups of drawings to a quantitative scoring system and then comparing the scores obtained by respective groups also did not adequately replicate the manner in which drawings tend to be used by experienced clinicians. This leads one to question the utility of such methods for the investigation and understanding of children's drawings. (It is assumed that most experienced clinicians would not simply base their entire interpretation of a particular drawing on the meanings attributed by a particular scoring system. However, it is not within the scope of the present research to evaluate the manner in which scoring systems may be used in clinical practice. Rather the intention is to examine one particular scoring system for research purposes).



In seeking another methodological and theoretical position which would shed light on the understanding of KFD's and how they are used as well as on the research process, the present researcher felt that postmodern conceptualisations may prove to be valuable. Of particular interest are the insights offered by social constructivism, social constructionism and deconstructionism. The following is not intended to be an analysis or a critique of the research from the postmodern perspective, but rather a short commentary on the potential value of using postmodern concepts to understand the research and the use of KFD scoring systems.

### **6.3 Comments on the KFD and the research process from a postmodernist perspective**

It is felt that the value of these approaches lies, in part, in their emphasis on the many meanings which any phenomenon could possibly be imbued with (Hepker, personal

communication). In this way they allow for, and perhaps even stimulate the viewing of phenomena from various differing perspectives. The clinician, according to this view, would not be obliged to consistently use a singular method, (for example a single quantitative scoring system), to understand drawings. In the therapeutic situation, according to theorists working in the social constructionist framework, this translates into negotiating and co-constructing meanings with the client. The present researcher contends that the research would seem to support the notion of using KFD's more qualitatively in a therapeutic setting, co-constructing meanings with the child. The clinician's theoretical knowledge of personality and the meanings attributed to certain features of drawings, (as appear in quantitative scoring systems), could then be used to supplement the clinician's understanding of the KFD. (This appears to echo Freud's beliefs about dreams, as suggested by the quotation at the beginning of this chapter, albeit couched in different conceptual terms). Of further benefit in postmodern conceptualisations is that there is increasing attention being paid to the unconscious and to how it can be accounted for and included in the social constructionist framework.

Further, and of importance therapeutically, the postmodern conception of art as a potentially subversive force, or at least as a means of initiating social change suggests that drawings have a range of uses, other than only aesthetic or diagnostic of emotional difficulties or developmental lags. Instead they can potentially be used to initiate positive changes for and in the child and his/her context.

The poor performance of the present (as well as other (see section 2.4.4, and particularly Tharinger and Stark's (1990) quotation in section 2.4.5)) scoring systems when subjected to empirical analysis is understandable when one considers, according to postmodern perspectives, that any scoring system is an attempt to artificially quantify and categorise artistic creations using a socially constructed scoring system. Since each artistic production and each instance of an attempt to interpret or understand the art product is unique, it is further understandable that different individuals will "see" different or divergent meanings and images in any particular art product.

In highlighting that scoring systems are socially constructed, they emphasise that these scoring systems were constructed to detect specific things. They will, by definition, be able to detect those things, marginalising alternative meanings and ignoring those features of the drawing which they were not designed to detect.

Bearing in mind the antagonism of postmodern theories to empiricism, it is felt that postmodernism debunks notions of the superiority of scientific/quantitative endeavour, since it could be conceptualised as only one of the many voices, or sets of meanings made, about KFD's. In this way it legitimises the use of alternate qualitative methods.

More generally, the approaches, particularly social constructivism, examine the sources and consequences of applied representations or interpretations, rather than the representations themselves, emphasising, for the present writer, the importance of using each drawing in the child's best interests. (*If drawings are used diagnostically, the latter would involve, for instance, not including any hypotheses drawn from the assessment about the child's internal and family life which could negatively influence the school's perception of the child, and perhaps even taking a more radical stance of refusing to do a personality sketch if the results will not be followed by action based on that sketch. Note: the use of "sketch" emphasises, for the present writer, that any attempt at describing a personality is a rough attempt at re-presenting or imaging an infinitely complex, abstract phenomenon*).

Most notable in deconstructionism, these approaches focus upon the investigation of WHY the drawing appears as it does, (as opposed to trying to find out what the drawing MEANS). This, together with the prominence assigned to the context in which the text (here, the KFD) arose is valuable since it facilitates and even encourages consideration of the multiplicity of factors which have been found to influence the final art product, (see section 2.7).

Social constructionism emphasises that standardised scoring systems are not definitive or quintessential to the KFD, but rather that they are social constructions, with a particular history and context. In practice, that the therapist's role is contended to include keeping a range of possible meanings in flux, appears to contradict the use of KFD's diagnostically. In addition, in legitimising and even affirming the uniqueness

In addition it seems unreasonable to assume that the therapist (or user of drawings) can enter into interaction with a client without there being a power differential in place. By virtue of the client's seeking some kind of assistance, they are implicitly placing the therapist in a place of authority, believing that the therapist has some skill which they can use to the client's benefit. In connection with drawings, it seems unlikely that all and only the client's interpretations of their own drawings could be accepted at face value. Particularly with children who are perhaps resistant to the assessment, what would happen if they did not want to engage in conversation with the therapist or if their interpretation of the drawing appears to the therapist to be defensive hence not accurate? In such cases would the therapist simply conform to the client's desires or interpretations or would they begin to impute their own interpretations to the drawings? (The latter is inevitable and acceptable, if recognised by the therapist, according to Efran and Clarfield (1992)).



## **6.4 Summary of research**

The present research was undertaken to explore a largely unexplored territory, that of the drawings of both sexually and non-sexually abused Zulu speaking females between the ages of 7 and 11.

To this end 28 subjects' KFD's were obtained, 14 subjects who had reported to an organisation who extensively deals with the child survivors and perpetrators of sexual abuse and another 14 from a local primary school who had no known history of sexual abuse.

The utility of one standardised scoring system used to interpret the KFD in practice, as well as 20 indicators suggested by the research to be frequent in the human figure drawings of sexually abused children, were researched. Results were interpreted quantitatively and an attempt was made to describe the drawings collected qualitatively, so as to supplement the quantitative analysis. In the present chapter it was contended that the social constructivist, deconstructionist and social constructionist understandings may be useful theoretical stances to help the individual grapple with, and make sense of, the complex issues surrounding KFD's.

The empirical analysis suggested that although the instrument may be reliable, it is sensitive to the training, theoretical stance, intentions, et cetera of the user of the scoring system. It was also suggested that the indicators used were not, as used by the scorers, sufficiently able to distinguish between the KFD's of the control and experimental groups. Certain of the indicators may not be relevant to South African populations since they were not scored at all by the scorers, (however due to small sample sizes, these should be further investigated).

The descriptive examination suggested that quantitative methods of evaluating KFD's are inadequate since they ignore much of the richness and uniqueness and hence possible meaning of KFD's. It was particularly suggested that additional or alternative meanings for any KFD be sought, including the meaning of the drawing to the child and the effect of the various factors identified as influencing children's artistic creations. It was not contended that standardised scoring systems be discarded, but that these are simply one set of meanings about any drawing which should be used in conjunction with a broader perspective of the child and therapist's respective contexts, and with engaging the child in an interchange so as to co-construct possible meanings of the KFD.

Throughout the present research project, the researcher has noted a number of areas in which she feels further research is needed, and should be undertaken to further examine the utility of quantitative scoring systems on South African populations as well as to examine the manner in which KFD's could be most beneficially used on South African children.



## **6.5 Summative statement: A way forward - Possibilities for the use of KFD's in the South African context**

In spite of the small subject samples, the research suggests that KFD's have value as a qualitative exploratory instrument in the process of understanding and deconstructing a client's life narrative. Quantitative methods appear to be limited in their ability to

distinguish between sexually abused and non-referred Zulu speaking girls. Using only a standardised scoring system limits the meanings which could be generated from a particular drawing. That is not to say, however, that standardised scoring systems should be abandoned completely, but rather that they should not be reified, rather being viewed as one set of meanings, relatively limited in terms of their interpretative powers, and relatively unresearched on South African populations. In view of this, these scoring systems should be used in conjunction with more qualitative means of interpreting drawings, and perhaps even the terminology and understanding of the “indicators” should be changed, such that they are viewed rather as “suggestors” (of possibilities or likelihoods) rather than as “indicators” of pathology.

Although not ruling out the use of projective techniques in the assessment process, it is suggested that they are well suited to the therapeutic context. In accordance with the social constructivist, deconstructionist and social constructionist perspectives, it is within the therapeutic context that meanings of the drawing could be generated and alternative meanings and life situations constructed. The former could be generated, to a lesser degree in the assessment context, however this would require that much additional time be spent with the child.

The empirical results suggest that standardised scoring systems are sensitive to the training and intentions of the users of these drawings. This, together with the contention that KFD's may be of particular value when integrated into the therapeutic, rather than diagnostic, process has several implications:

- It is suggested that training health care workers in the administration and scoring of the KFD may be inappropriate since, if anything, it is hoped that the present research illustrated the complex nature of the administration, scoring and interpretation of the KFD as well as the alternative approaches that could be used in the understanding of any KFD. Since KFD's are contended to have more value when used as part of the therapeutic process, it is unlikely that these health care workers could be trained in a short time period to undertake this.
- It is suggested that the psychologist's lens through which he/she views KFD's be expanded to include (i) the context from which the child comes; (ii) the context in which the drawing was created, (both within the testing room and without), (iii) factors particular to the child, (for instance artistic talent), as well as (iv) the

PROCESS by which the drawing was created. It also emphasises that the PROCESS by which the drawings are interpreted and the manner in which they are used be attended to and deconstructed.

- The necessity of the psychologist's being sensitive and responsible about the use of drawings and the consequences of interpretations is also of great importance. It would constitute responsible practice not to disclose any information as to the results of the emotional assessment to schools, (if such assessments are to be performed at all). One should perhaps even go to the extent of declining to do an emotional assessment if the results are not going to be used for the child's benefit. (This would include instances where an assessment is done and therapy is recommended, but the recommendation is not followed through by the child's caregivers - an analogy which comes to mind is that of a book which one opens and begins to read, only to leave it unfinished after having read the first few pages).

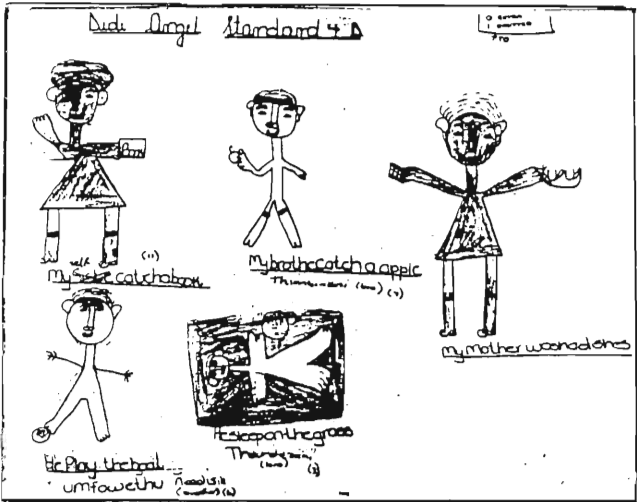
It is also strongly suggested that the user of drawings maintain an attitude of reflexivity in his/her work with drawings. He/she should continually be aware of the source of his/her interpretations, as well as keeping in mind that other interpretations are possible and in fact useful. That any manner of interpreting a drawing is simply a social construction and hence an attempt to impose an artificial organising categorisation onto the drawing should also be foremost in the user of the drawing's mind.

Perhaps the most appropriate statement, which captures the writer's own convictions as regards the utility of the empirical system of understanding, is that made by Alant (1990, p.59):

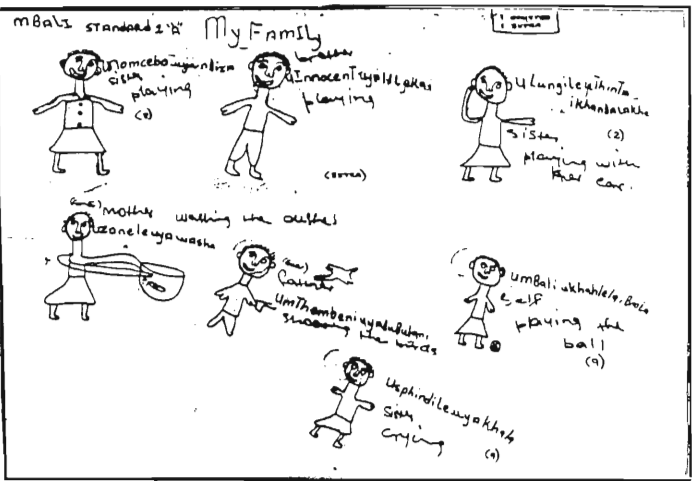
"What I am advocating is not the abolition of research...I...plead for a more humane application in all its manifestations. When noses are counted there must be an honest and critical appraisal of the presuppositions and rationale of the total operation."



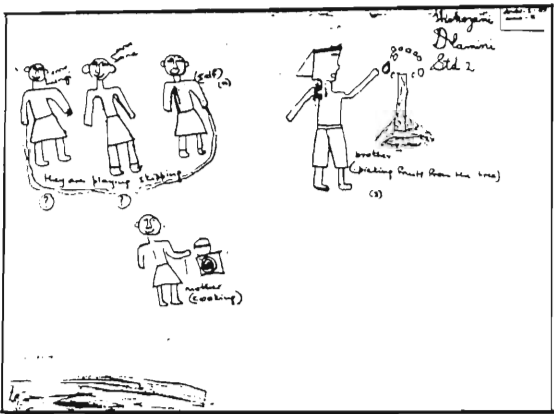
***"Like the peasant in the old story, first we shoot holes in the fence, then we paint the bull's-eyes around them" (Clifford Geertz).***



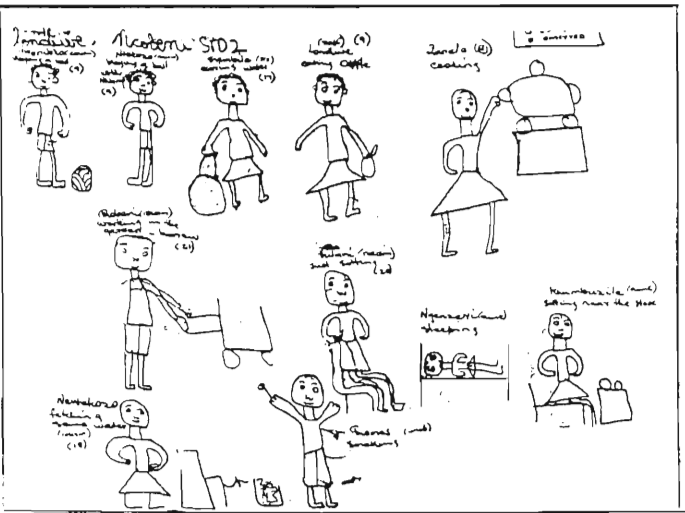
KFD 25



KFD 26



KFD 27



KFD 28

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## Appendix A

### Consent forms and demographic information sheets - Experimental Group

As used by the lay counsellors

#### Family Background Information

I am doing research on the drawings of children at the University of Natal (Pietermaritzburg). As part of this project I have received permission from this hospital to conduct some of my research with female patients in the hospital who are between 7 and 11 years old. All information will be kept strictly confidential.

Each girl will be asked to draw two pictures.

Please will you complete the following.

I will allow my daughter, \_\_\_\_\_ (your daughter's name) to take part in the research project.

Your name: \_\_\_\_\_

\_\_\_\_\_  
(Sign here)

\_\_\_\_\_  
(Counsellor's signature)

#### COUNSELLOR INFORMATION

DATE: \_\_\_\_\_

PLACE: (EDENDALE / GREYS)

CLASSIFICATION OF ABUSE:

(NO EVIDENCE / POSSIBLE / PROBABLE / DEFINITE)

Please complete the following, giving information on all the people, (including yourself and your daughter,) who live in your house.

Name	Age	Occupation (for adults) or standard at school (for children)	Relationship with daughter, (e.g. brother, grandmother)	Employed or unemployed at present, (for adults)

Who is the head of your household?

Are your married?

How do you view your relationship with your daughter (the patient)?

How many times, that you know of, was your daughter (the patient) sexually abused?

Was your daughter sexually abused regularly?

If she was sexually abused more than once, was the perpetrator the same person each time?

What is the relationship between your daughter (the patient) and the perpetrator?

no		yes	
not very good	average	good, close intimate	
Father	family member/ friend	some-one not known to the your daughter / the patient or her family	we don't known who the perpetrator is, (whether it was a family member, stranger, etc.

How old was the patient when the sexual abuse started?

How long, (over what length of time,) did the sexual abuse continue?

Where did the sexual abuse occur? (e.g. at home, at a friend's home, etc.)

How long after the patient said she was abused did she come to the hospital?

Who brought the child to the hospital?

immediately	within a week	after longer than a week
she came on her own	a family member/friend brought her	I, (her mother) brought her

Why was she brought to hospital?

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Who takes care of your child when you are at work? (Where does your daughter go to when she is not at school?)

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What does your child do every day - her routine before and after going to school?

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Thank you for your time and co-operation.

Cindy Mc Donald

For the control group - Zulu form used

(Ushicilelo lomaluleki)

[illegible]



Ubani oyinhloko yekhaya \_\_\_\_\_

\_\_\_\_\_

Ngiyabonga ngesikhathi onginike sona nokuvuma ukubambisana nami kulolucwaningo.

Cindy Mc Donald

**IMININGWANE YOMALULEKI**

USUKU: \_\_\_\_\_

INDAWO:

IZINDLELA ZOKUHLUKUMEZEKA:

(AKUNABUFAKAZI / MHLAWUMBE BUKHONA / KUNGENZEKA BUBEKHONA /  
BUKHONA UBUFAKAZI)

For the control group - English translation

Family Background Information

I am doing research on the drawings of children at the University of Natal (Pietermaritzburg). As part of this project I have received permission from this school to conduct some of my research with female pupils in the school who are between 7 and 11 years old. All information will be kept strictly confidential.

Each girl will be asked to draw two pictures.

Please will you complete the following:

I will allow my daughter, \_\_\_\_\_ (your daughter's name) to take part in the research project.

Your name: \_\_\_\_\_

\_\_\_\_\_  
(Sign here)

\_\_\_\_\_  
(Counsellor's signature)

Please complete the following, giving information on all the people, (including yourself and your daughter,) who live in your house.

Name	Age	Occupation (for adults) or standard at school (for children)	Relationship with daughter, (e.g. brother, grandmother)	Employed or unemployed at present, (for adults)

Who is the head of your household?

Thank you for your time and co-operation.

Cindy Mc Donald

## Appendix C

### Instructions given to the social workers

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#### Research on the Kinetic Family Drawings of Sexually Abused Zulu Speaking Females

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- Please administer only on Zulu speaking females between the ages of 7 and 11.
- Please obtain both parent's and child's consent on the form provided before administering the questionnaire and getting the child to complete the drawing.
- When getting the child to do the drawing, please **ONLY** read the Zulu instructions printed on the card provided. If they do not understand, or if they ask a question, simply repeat the instructions or a part thereof. Please don't give them an example of what they could draw, (for instance mother cooking). That each child gets exactly the same instruction is extremely important.
- The child is only allowed to draw with a lead pencil, (provided), on a blank sheet of A4 paper. (No wax or pencil crayons please).
- She may erase parts of the drawing if she wants to.
- Once the child has completed the drawing, please ask her who each person in the drawing is and what he / she is doing, and write this in pencil next to the drawing of the person in question.

Thank you so much for helping me in this research.

C. Mc Donald

Tel: (0331) 260-5360 (w)  
 (0331) 472728 (h)  
 (after 15 December 1997 - (011) 813-2464 (h))

## Appendix D

### Scoring Sheets

#### First Scoring

EMOTIONAL INDICATOR	✓ / x	ABUSE INDICATOR	✓ / x
Lack of appropriate physical proximity		Sexual characteristics on figures - breasts.	
Isolation of self		Sexual characteristics on figures - genitalia	
Barriers between figures		Contorted drawing of chest or genital region	
Relative height of child (big)		Attention paid to midpoint areas - belts, zips, buckles	
Relative height of child (small)		Omission of lower body	
Fields of force (balls)		Shading or cross-hatching of genitals or oral areas	
Fields of force (fires)		Increased number of physical features on subject	
Fields of force (appliances)		Asexual	
Fields of force (X's)		Regressed	
Shading or crosshatching		Hair emphasised or excited	
Pencil erasures		Hair long and unshaded	
Arm extensions of any figure		Hair omitted	
Description of actions not same as drawing		Sexual contact between figures	
Position of any figure with respect to safety		Omitted hands	
Figure missing essential body parts		Legs pressed together	
Rotation of figure (45°)		Head only	
Encapsulation		Circular mouths	
Compartmentalism of figures		Emphasis on circles	
Folding compartmentalism		Phallic symbols	
Underlining of individual figures		Clown images	
Lining at bottom of page			
Lining at top of page		<b>TOTAL</b>	
Edged placement of figures			
Anchoring			
Evasions (some figures)			
Motionless or stick figures (all figures)			
Number of household members absent			
Figure(s) on back of page			
Line quality - light			
Line quality - heavy			
Line quality - unsteady			
Asymmetric drawing			
Buttons			
Jagged or sharp fingers, toes, teeth			
Bizarre figures			
Excessive attention to detail			
Transparencies			
<b>TOTAL</b>			

## Second Scoring

	EMOTIONAL INDICATOR	✓ / X		ABUSE INDICATOR	✓ / X
1.	Lack of appropriate physical proximity		38	Sexual characteristics on figures - breasts	
2.	Isolation of self		39	Sexual characteristics on figures - genitalia	
3.	Barriers between figures		40	Contorted drawing of chest or genital region	
4.	Relative height of child (big)		41	Attention paid to midpoint areas - belts, zips, buckles	
5.	Relative height of child (small)		42	Omission of lower body	
6.	Fields of force (balls)		43	Shading or cross-hatching of genital or oral areas	
7.	Fields of force (fires)		44	Increased number of physical features on subject	
8.	Fields of force (appliances)		45	Asexual	
9.	Fields of force (X's)		46	Regressed	
10.	Shading or crosshatching		47	Hair emphasised or excited	
11.	Pencil erasures		48	Hair long and unshaded	
12.	Arm extensions of any figure		49	Hair omitted	
13.	Descriptions of actions not same as drawing		50	Sexual contact between figures	
14.	Position of any figure with respect to safety		51	Omitted hands	
15.	Figure missing essential body parts		52	Legs pressed together	
16.	Rotation of figure (45°)		53	Head only	
17.	Encapsulation		54	Circular mouths	
18.	Compartmentalism of figures		55	Emphasis on circles	
19.	Folding compartmentalism		56	Phallic symbols	
20.	Underlining of individual figures		57	Clown images	
21.	Lining at bottom of page			<b>TOTAL</b>	
22.	Lining at top of page				
23.	Edged placement of figures				
24.	Anchoring				
25.	Evasions (some figures)				
26.	Motionless or stick figures (all figures)			<b>EXPLORATORY ITEM</b>	
27.	Number of household members absent			Number of additional figures	
28.	Figure(s) on back of page				
29.	Line quality - light				
30.	Line quality - heavy				
31.	Line quality - unsteady				
32.	Asymmetric drawing				
33.	Buttons				
34.	Jagged or sharp fingers, toes, teeth				
35.	Bizarre figures				
36.	Excessive attention to detail				
37.	Transparencies				
	<b>TOTAL</b>				

## Appendix E

### Operationalisation of Indicators

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#### First Scoring

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#### OPERATIONALISATION OF SCORING CRITERIA

##### INDICATORS SUGGESTED BY REYNOLDS (1978) AS USED BY THARIGER AND STARK (1990)

1. **Lack of appropriate physical proximity** - Subject (self) is drawn in isolation from other figures or in inappropriately close physical proximity, (e.g. drawn in bed with a male family member, self sitting on someone's lap or involved in contact of a sexual nature);
2. **Isolation of self** - The self is more isolated from other members of the family than these other members are from each other, only the self is isolated (through space / distance or a barrier) from other family members who are portrayed as a group or a unit;
3. **Barriers between figures** - Objects, other than lines, drawn between the child and another figure in the drawing;
4. **Relative height of child (big)** - Subject is drawn the same size as, or bigger than adults in the family;
5. **Relative height of child (small)** - Subject is drawn the same size as, or smaller than the youngest member of the family;
6. **Fields of force (balls)** - One or more balls are drawn;
7. **Fields of force (fires)** - One or more fires are drawn;
8. **Fields of force (appliances)** - One or more electrical appliances are drawn, (e.g. a vacuum cleaner, toaster, kettle);
9. **Fields of force (X's)** - An "X" appears between any figures in the drawing;
10. **Shading or crosshatching** - (Of any area other than the hair) - areas are shaded / coloured in or a number of "X's" are drawn (e.g. as a pattern on a dress);
11. **Pencil erasures** - Seen in any part of the drawing;
12. **Arm extensions of any figure** - Any figure's arms are made longer by means of an object (i.e. their reach is lengthened) e.g. a broom, pen, etc., not, e.g. ball or handbag;
13. **Description of actions not same as drawing** - The subject's description of the action of the figures does not seem to describe the actual action / activity the subject drew;
14. **Position of any figure with respect to safety** - Any figure is in a dangerous or precarious position according to the manner in which the figure is drawn or the verbal description of the figure's actions;
15. **Figure missing essential body parts** - Any figure missing essential body parts, e.g. the mouth, eyes, feet, etc.

16. **Rotation of figure (45°)** - Any figure(s) who are rotated such that their ground-line would differ from the other figure's ground-line by 45° or more, (e.g. in bed or on a swing).
17. **Encapsulation** - One or more, but NOT all figures is enclosed by lines which do not extend across the entire page.
18. **Compartmentalism of figures** - One or more straight lines are used to separate one or more figures;
19. **Folding compartmentalism** - The paper is folded into sections and figures are drawn in the various sections;
20. **Underlining of individual figures** - One or more figures are underlined individually, (that is, not as part of a general ground-line);
21. **Lining at bottom of page** - A line is drawn along the bottom of the picture, (not necessarily the bottom of the page), and not just under a single figure;
22. **Lining at top of page** - A line is drawn along the top of the picture, (not necessarily the top of the page), not just above a single figure;
23. **Edged placement of figures** - ALL figures are drawn along *two or more edges* of the paper;
24. **Anchoring** - All figures are drawn within one inch of a *single edge* of the paper;
25. **Evasions (some figures)** - One or more, but NOT all figures are drawn showing no action or as stick figures, (regardless of subject's description of actions);
26. **Motionless or stick figures (all figures)** - ALL figures are drawn without action or as stick figures (regardless of subject's description of actions);
27. **Number of household members absent** - One or more individuals classified as members of the subject's household are not depicted;
28. **Figure(s) on back of page** - The subject uses both sides of the paper to draw her KFD;
29. **Line quality - light** - Light, broken or uneven (light and dark combined) lines comprise the majority of the drawing;
30. **Line quality - heavy** - Heavy, overworked lines comprise the majority of the drawing;
31. **Line quality - unsteady** - Unsteady or wavy lines comprise the majority of the drawing;
32. **Asymmetric drawing** - Drawing looks disorganized and unbalanced;
33. **Buttons** - Buttons appear to be emphasised or elaborated;
34. **Jagged or sharp fingers, toes, teeth** - Jagged or sharp fingers, toes or teeth are depicted on one or more figures;
35. **Bizarre figures** - Figures which do not appear to be human, e.g. monsters, robots or human figures in which there is distortion of the whole figure or part thereof, e.g. internal organs are visible, or animalistic features are seen - e.g. animal ears on a human;

- 36. **Excessive attention to detail** - Excessive and unnecessary detailing or elaboration of details is depicted.
- 37. **Transparencies** - Objects or figures are made to appear transparent such that the front object or person does not obscure that which is behind it - the back object is seen through the object / figure in front of it;

#### INDICATORS SUGGESTED BY RESEARCH ON DAP'S

- 38. **Sexual characteristics on figures - breasts** - Evidence of breasts is seen on one or more of the figures;
- 39. **Sexual characteristics on figures** - Evidence of male or female genitalia is seen on one or more of the figures;
- 40. **Contorted drawing of chest or genital region** - The chest or genital region appears to be distorted, broken, etc.
- 41. **Attention paid to midpoint areas** - Belts, zips, buckles;
- 42. **Omission of lower body** - Omission of body from at least the waist downwards, (i.e. omission of knees and calves doesn't qualify);
- 43. **Shading or cross-hatching of genital or oral areas;**
- 44. **Increased number of physical features on subject** - For instance freckles, tattoos, scars, dimples, etc.
- 45. **Asexual** - No differentiation between the depiction of males and females;
- 46. **Regressed** - Subject's drawing appears to be immature to the extent that figures and objects are disorganized and are recognisable only by the child;
- 47. **Hair emphasised or excited** - Hair emphasis through heavy line pressure, shading, etc., and excited hair depicted by appearing unkempt, untidy or standing up;
- 48. **Hair long and unshaded** - (Query as to how frequent this would be in an African sample);
- 49. **Hair omitted** - Any figure has no hair whatsoever on his / her head;
- 50. **Sexual contact between figures** - Any figures are depicted making sexual contact suggesting an inappropriately great knowledge of sex;
- 51. **Omitted hands** - Hands (or fingers) not seen on at least one figure;
- 52. **Legs pressed together** - legs are drawn in together and in a stance suggesting that they are being pressed together (i.e. a closed, not wide stance);
- 53. **Head only** - At least one figure is depicted as only a head, no limbs;



- 54. **Circular mouths** - Mouth is shaped as an 'O', (in latency age or older children's drawings);
- 55. **Emphasis on circles** - Circles are used extensively in the picture to represent objects, figures or parts thereof, (excluding the mouth, see indicator 19);
- 56. **Phallic symbols** - Any part of the drawing suggestive of a penis, seen in, e.g. clouds, trees, telephone poles etc. The child denies the phallic nature of these;
- 57. **Clown images** - A clown image is shown in any part of the picture, e.g. a clown-like smile, a clown's hair or clothing, etc.;

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## Second Scoring

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### INDICATORS SUGGESTED BY REYNOLDS (1978) AS USED BY THARIGER AND STARK (1990)

1. **Lack of appropriate physical proximity** - Subject (self) is drawn in isolation from other figures or in inappropriately close physical proximity, (e.g. drawn in bed with a male family member, self sitting on someone's lap or involved in contact of a sexual nature);
2. **Isolation of self** - The self is more isolated from other members of the family than these other members are from each other, only the self is isolated (through space / distance or a barrier) from other family members who are portrayed as a group or a unit;
3. **Barriers between figures** - Objects, not just lines, drawn between the child and another figure in the drawing;
4. **Relative height of child (big)** - Subject is drawn the same size as, or bigger than any adult(s) in the family;
5. **Relative height of child (small)** - Subject is drawn the same size as, or smaller than younger members of the family;
6. **Fields of force (balls)** - One or more balls are drawn;
7. **Fields of force (fires)** - One or more fires are drawn;
8. **Fields of force (appliances)** - One or more electrical appliances are drawn, (e.g. a vacuum cleaner, toaster, kettle);
9. **Fields of force (X's)** - An "X" appears between any figures in the drawing, (e.g. an ironing board's legs);
10. **Shading or crosshatching** - (Of any area other than the hair) - areas are shaded / coloured in or a number of "X's" are drawn (e.g. as a pattern on a dress);
11. **Pencil erasures** - Seen in any part of the drawing;
12. **Arm extensions of any figure** - Any figure's arms are made longer by means of an object (i.e. their reach is lengthened) e.g. a broom, pen, etc., *not*, e.g. ball or handbag;
13. **Description of actions not same as drawing** - The subject's description of the action of the figures does not seem to describe the actual action / activity depicted;
14. **Position of any figure with respect to safety** - Any figure is in a dangerous or precarious position according to the manner in which the figure is drawn or the verbal description of the figure's actions;
15. **Figure missing essential body parts** - Any figure missing essential body parts, e.g. the mouth, eyes, feet, etc.
16. **Rotation of figure (45°)** - Any figure(s) who is / are rotated such that their ground-line would differ from the other figure's ground-line by 45° or more, (e.g. in bed);

17. **Encapsulation** - One or more, but NOT all figures is enclosed by lines which do not extend across the entire page.
18. **Compartmentalism of figures** - One or more straight lines are used to separate one or more figures (compare Indicator 3 - *Barriers*, anything other than lines between figures);
19. **Folding compartmentalism** - The paper is folded into sections and figures are drawn in the various sections;
20. **Underlining of individual figures** - One or more figures are underlined individually, (that is, not as part of a general ground-line);
21. **Lining at bottom of page** - A line is drawn along the bottom of the picture, (not necessarily the bottom of the page), and not just under a single figure;
22. **Lining at top of page** - A line is drawn along the top of the picture, (not necessarily the top of the page), not just above a single figure;
23. **Edged placement of figures** - ALL figures are drawn along *two or more edges* of the paper;
24. **Anchoring** - All figures are drawn within one inch of a *single edge* of the paper;
25. **Evasions (some figures)** - One or more, but NOT all figures are drawn showing no action or as stick figures, (regardless of subject's description of actions);
26. **Motionless or stick figures (all figures)** - ALL figures are drawn without action or as stick figures (regardless of subject's description of actions);
27. **Number of household members absent** - One or more individuals classified as members of the subject's household are not depicted;
28. **Figure(s) on back of page** - The subject uses both sides of the paper to draw her KFD;
29. **Line quality - light** - Light, broken or uneven (light and dark combined) lines comprise the majority of the drawing;
30. **Line quality - heavy** - Heavy, overworked lines comprise the majority of the drawing;
31. **Line quality - unsteady** - Unsteady or wavy lines comprise the majority of the drawing;
32. **Asymmetric drawing** - Drawing looks disorganized and unbalanced;
33. **Buttons** - Buttons appear to be emphasised or elaborated;
34. **Jagged or sharp fingers, toes, teeth** - Jagged or sharp fingers, toes or teeth are depicted on one or more figures;
35. **Bizarre figures** - Figures which do not appear to be human, e.g. monsters, robots or human figures in which there is distortion of the whole figure or part thereof, e.g. internal organs are visible, or animalistic features are seen - e.g. animal ears on a human;
36. **Excessive attention to detail** - Excessive and unnecessary detailing or elaboration of details is depicted.

37. **Transparencies** - Objects or figures are made to appear transparent such that the front object or person does not obscure that which is behind it - the back object is seen through the object / figure in front of it;

#### INDICATORS SUGGESTED BY RESEARCH ON DAP'S

38. **Sexual characteristics on figures - breasts** - Evidence of breasts is seen on one or more of the figures;
39. **Sexual characteristics on figures - genitalia** - Evidence of male or female genitalia is seen on one or more of the figures;
40. **Contorted drawing of chest or genital region** - The chest or genital region appears to be distorted, broken, etc.
41. **Attention paid to midpoint areas** - Belts, zips, buckles;
42. **Omission of lower body** - Omission of body from at least the waist downwards, (i.e. omission of knees and calves doesn't qualify);
43. **Shading or cross-hatching of genital or oral areas;**
44. **Increased number of physical features on subject** - For instance freckles, tattoos, scars, dimples, etc.
45. **Asexual** - No differentiation between the depiction of males and females;
46. **Regressed** - Subject's drawing appears to be immature to the extent that figures and objects are disorganized and are recognisable only by the child;
47. **Hair emphasised or excited** - Hair emphasis through heavy line pressure, shading, etc., and excited hair depicted by appearing unkempt, untidy or standing up;
48. **Hair long and unshaded** - (Query as to how frequent this would be in an African sample);
49. **Hair omitted** - Any figure has no hair whatsoever on his / her head;
50. **Sexual contact between figures** - Any figures are depicted making sexual contact suggesting an inappropriately great knowledge of sex;
51. **Omitted hands** - Hands (or fingers) not seen on at least one figure;
52. **Legs pressed together** - legs are drawn in together and in a stance suggesting that they are being pressed together (i.e. a closed, not wide stance);
53. **Head only** - At least one figure is depicted as only a head, no limbs;
54. **Circular mouths** - Mouth is shaped as an 'O', (in latency age or older children's drawings);
55. **Emphasis on circles** - Circles are used extensively in the picture to represent objects, figures or parts thereof, (excluding the mouth, see indicator 19);

- 56. **Phallic symbols** - Any part of the drawing suggestive of a penis, seen in, e.g. clouds, trees, telephone poles etc. The child denies the phallic nature of these;
- 57. **Clown images** - A clown image is shown in any part of the picture, e.g. a clown-like smile, a clown's hair or clothing, etc.;

#### EXPLORATORY ITEM

- 58. **Number of household members absent** - One or more individuals classified as members of the subject's household are not depicted.

## Appendix F

Significance Level of Difference between individual Indicators -  
Experimental versus Control Groups

N O.	INDICATOR	INCIDENCE - EXPERIMENTAL		INCIDENCE - CONTROL		SIGNIFICANCE (p)	
		Scorer Q	Scorer R	Scorer Q	Scorer R	Scorer Q	Scorer R
Emotional Indicators							
1	Lack of appropriate physical proximity	1	1	2	0	.5	.5
2	Isolation of self	2	5	2	2	.7	.19
3	Barriers between figures	6	5	10	9	.13*	.13*
4	Relative height of child (big)	5	1	10	0	.058*	.5
5	Relative height of child (small)	2	2	3	1	.5	.5
6	Fields of force (balls)	5	5	4	5	5	1.00*
7	Fields of force (fires)	0	0	0	0	-	-
8	Fields of force (appliances)	4	4	3	5	.5	.5
9	Fields of force (X's)	0	0	0	0	-	-
10	Shading or crosshatching	5	5	6	3	.7*	.34
11	Pencil erasures	10	12	13	13	.16	.5
12	Arm extensions of any figure	5	12	8	13	.26*	.5
13	Description of actions not same as drawing	1	4	0	2	.31*	.32
14	Positions to any figure with respect to safety	0	1	0	2	-	.5
15	Figure missing essential body parts	12	12	10	11	.32	.5
16	Rotation of figure (45°)	3	3	6	6	.21	.21
17	Encapsulation	3	2	7	8	.11*	.02*
18	Compartmentalism of figures	3	3	1	0	.3	.11
19	Folding compartmentalism	0	0	0	0	-	-
20	Underlining of individual figures	0	1	0	0	-	.5
21	Lining at bottom of page	0	1	0	1	-	.76
22	Lining at top of page	0	1	0	0	-	.5
23	Edged placement of figures	1	1	0	1	.5	.76
24	Anchoring	3	4	0	1	.11	.16
25	Evasions	5	9	4	4	.5	.06*
26	Motionless or stick figures	0	0	1	3	.5	.11
27	Number of household members absent	7	8	5	5	.45*	.26*
28	Figure(s) on back of page	3	4	0	0	.11	.05
29	Line quality - light	5	11	10	14	.06*	.11
30	Line quality - heavy	1	0	1	0	.76	-
31	Line quality - unsteady	0	0	0	0	-	-
32	Asymmetric drawing	5	6	3	3	.34	.21
33	Buttons	5	5	5	5	1.00*	-
34	Jagged or sharp fingers, toes or teeth	0	0	1	1	.5	.5
35	Bizarre figures	1	1	1	1	.76	.76
36	Excessive attention to detail	0	1	2	3	.24	.3
37	Transparencies	6	9	4	3	.43*	.02

Sexual Abuse Indicators							
38	Sexual characteristics on figures - breasts	1	1	0	0	.5	.5
39	Sexual characteristics on figures - genitalia	0	0	0	0	-	-
40	Contorted drawing of chest or genital region	2	4	2	3	.7	.5
41	Attention paid to midpoint areas - belts, zips, buckles	3	3	2	3	.5	.68
42	Omission of lower body	1	1	0	1	.5	.76
43	Shading or cross-hatching of genital or oral areas	2	2	4	1	.32	.5
44	Increased number of physical features on subject	0	1	1	3	.5	.3
45	Asexual	2	4	2	1	.7	.16
46	Regressed	5	7	1	6	.08	-
47	Hair emphasised or excited	5	6	3	3	.34	.21
48	Hair long and unshaded	0	2	0	0	-	.24
49	Hair omitted	7	9	8	10	.7*	.5
50	Sexual contact between figures	0	0	0	0	-	-
51	Omitted hands	6	8	6	7	1.00*	1.00*
52	Legs pressed together	0	0	0	0	-	-
53	Head only	0	1	0	0	-	.5
54	Circular mouths	2	3	2	2	.7	.5
55	Emphasis on circles	0	0	0	0	-	-
56	Phallic symbols	7	6	8	11	.7*	.53*
57	Clown images	0	0	0	0	-	-
58	Number of additional figures	7	7	6	7	.7*	1.00*

\* Chi-square significance reported - all cells containing observed frequencies  $\geq 5$ .

## Appendix G

### Translation of Standardised Instructions - Zulu

#### Okumele kulandelwe uma kudwetshwa isithombe somndenini

Dweba isithombe sawo wonke umuntu wasemndenini wakho enza into ethile, uzibale nawe. Zama ukudweba abantu abaphelele, hayi onopopi noma unamathisele izithombe zabantu. Khumbula ukuthi wenze wonke umuntu abe nokuthize akwenzayo -- makube nomnyakazo awenzayo.